

## Live Stock Traffic.

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**1. (a)** The Station-master must give the Live Stock Traffic his personal attention, but at any Depot Station where day and night Yard Foremen are employed, the supplying of trucks, etc., may be attended to by the Yard Foreman under the Station-master's supervision.

**(b)** Goods trucks must not be used for the conveyance of Live Stock unless specially authorised by the Live Stock Agent.

**2. (a)** Officers in charge must ascertain from Consignors requiring transport for Live Stock from Stations in this State to New South Wales, whether they desire arrangements for the supply of connecting trucks at the Border Station to be made by this Department; if so, deposit of 24/- must, except as shown in Section (i.) hereof, be collected on each truck, and the Live Stock Agent promptly advised.

**(i.)** In cases where orders for live stock trucks or horse-boxes are received by telephone from clients who live some distance from the station. the order may be taken and transmitted to Live Stock Agent for acceptance without the deposit of 24/- per truck being collected. The persons lodging the order must, however, be informed that the prescribed requisition form and deposit must be lodged at the first available opportunity; in the event of their not being able to attend at the Station until the loading date the requisition form must then be lodged, but the deposit need not be collected.

Stations accepting orders by telephone must, however, in every case, satisfy themselves as to the bona-fides of persons ordering trucks or horse-boxes.

**(b)** All orders for trucks to convey Live Stock must be forwarded to the Office of the Live Stock Agent. The Station-master may receive orders from Consignors, but he is not at liberty to inform them that trucks will be supplied until permission to do so is received from the Live Stock Agent. Owners must be informed that trucks for Market Stock should be ordered through their Selling Agents. Orders for trucks should be lodged as follows:—

For trucks to load on Monday and Tuesday—At the Office of the Live Stock Agent, by 10 a.m. on the previous Wednesday and Thursday respectively, but in any case of emergency, orders may be taken for Monday's loading up to 3 p.m. on the previous Friday, and for Tuesday's loading up to 11 a.m. on the previous Saturday, provided, of course, that there will be room on the train and that trucks are available.

No order for Monday or Tuesday will be accepted after the time stated on the days specified.

When ordering trucks the following particulars should be given:— Name of Sender and Consignee; Kind of Live Stock; Destination; When required; Train preferred.

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3. (a) When instructions are issued for Live Stock to be loaded, the Station-master at the Loading Station must, on receipt of the same, immediately apply to the Depot or Sub-Depot, as the case may be, for the trucks required. A list must be kept at each Depot, showing the trucks ordered, trains to be loaded for, and trains by which empties are to be supplied. Special care should be taken to see that trucks arrive in ample time to load for the trains arranged. If vehicles are later than usual in being supplied, the Station-master at the Loading Station should be advised, but, to make sure that there is no mistake, the latter should communicate with his Depot, and ascertain when the trucks will be sent.

Preliminary advice of the loading of sheep and cattle trucks authorised by the Live Stock Agent will be sent to Depot and Sub-Depots as shown hereunder:—

- (i.) **MONDAY LOADING.**—Telegraphic advice will be sent on Thursday afternoon, and "S.P." Notices will be issued and despatched the same afternoon. For subsequent orders accepted up to Friday afternoon a "Coma" wire will be sent to Depots and Sub-Depots on Friday afternoon, and "S.P." Notices showing the extra trucks and any alterations will be issued and despatched the same afternoon.
- (ii.) **TUESDAY LOADING.**—Telegraphic advice will be sent on Friday afternoon, and "S.P." Notices will be issued and despatched the same afternoon. For subsequent orders accepted up till mid-day Saturday, a "Coma" wire will be sent to Depots and Sub-depots, and "S.P." Notices will be issued and despatched mid-day Saturday showing the extra trucks and any alterations.
- (iii.) **THURSDAY LOADING.**—When loading is sufficiently heavy, telegraphic advice will be sent on Monday afternoon, and "S.P." Notices will be issued and despatched the same afternoon.  
 For subsequent orders accepted up till Tuesday afternoon a "Coma" wire will be sent on Tuesday afternoon, and "S.P." Notices will be issued and despatched the same afternoon.
- (iv.) If additional orders are accepted later for Monday, Tuesday or Thursday loading, Depots, Sub-depots, and Loading Stations concerned will be advised by telegram or memo.
- (v.) The telegraphic advices on Thursdays and Fridays (in the case of Monday's loading), and the telegraphic advices on Fridays and Saturdays (in the case of Tuesday's loading) should agree with the "S.P." Notices issued the same day. Similarly, the telegraphic advices on Mondays and Tuesdays (in the case of Thursday's loading) should agree.

If any discrepancy between the Telegraphic advice and "S.P." Notice should be observed, the Officers-in-charge at Depots and Sub-Depots must immediately advise the Live Stock Agent by telegram.

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(b) Orders for trucks to convey Live Stock to the Flemington Race-course, Newmarket Show Grounds Siding, or Newmarket on either Race or Show days must not be accepted without first consulting the Live Stock Agent if delivery of such Stock is required between the hours of 8 a.m. and 6.30 p.m.

(c) Live Stock must be yarded in sufficient time to permit of it being loaded and despatched by the trains arranged. Senders should be informed that trains will not be detained, and that if their stock is not loaded in time it will be liable to be left behind.

4. Trucks that are not loaded must not be charged for, but in every case where the loading arrangements are not adhered to, or in the event of trucks being short loaded, or the destination Stations altered, the Station-master must promptly wire particulars to the Live Stock Agent, and the Depot, and Receiving Stations. The empty trucks must be kept on hand until advice as to their disposal is received.

5. The number of cattle trucks and sheep trucks on hand must be correctly shown on the Rolling Stock Return.

6. Trucks received loaded with Live Stock must not, after they are unloaded, be disposed of without authority from the Depot or Sub-Depot, as the case may be. The Station-master at the Sub-Depot must confer with the Station-master at the Depot before ordering trucks to be sent away empty. Care must be taken to see that unnecessary haulage is avoided.

7. (a) Great care must be taken to prevent injury to Live Stock during transit. Trucks must not be shunted unless it is unavoidable, and when necessary it should be done as gently as possible, so that the animals will not be knocked about or caused to fall. Where it can be reasonably avoided shunting must not be done with trucks loaded with Live Stock attached to the engine. Every Station-master, Guard and other employe concerned must carefully examine the trucks from time to time, and satisfy themselves that the animals are travelling safely. If any be found down, or requiring attention, steps must be taken to have them put right as soon as possible. If necessary, they must be discharged and reloaded at the cattle race.

(b) Engine-drivers must use every care in the shunting, starting and stopping of trains by which Live Stock is conveyed.

(c) Whenever it is necessary for the Guard, or other employe, or a Drover travelling with stock, to make an inspection of the animals, the Guard is specially enjoined not only to see that, during such inspection, no Train-pipe cock handle is inadvertently altered in position, but also that the continuity of the Air Brake is not interfered with.

(d) No person must be allowed to go on the roof of any truck within the electrified area; Guards and other employes are also cautioned, and they must warn Drivers and others of the danger of allowing whips or rods, etc., to make contact with the overhead wires or their connections.

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**8.** (a) Goods trains must not be detained more than 20 minutes waiting for Live Stock to be reloaded. If the animals cannot be reloaded in that time, they must be left behind and be sent on by the next available Mixed or Goods train, a second truck, if necessary, being supplied for their accommodation.

(b) The Live Stock Agent and the Sending and Receiving Stations must be promptly advised by wire of the circumstances in all cases. Full particulars should be given, viz., Sending and Receiving Stations, name of Consignee and number of truck, also name of Engine-driver and Guard. The Guard must furnish a special report stating whether any rough shunting was done, and when the animals were first noticed down in the truck. The same course as regards advising by wire the Live Stock Agent, and the Sending and Receiving Stations must be followed in the event of trucks being detained with hot-boxes or from any other cause. (See further instruction in this Book, page 471, in regard to hot axle boxes.)

(c) If any difficulty be experienced in loading restive horses, Country Passenger or Mixed trains by which they are to be forwarded must not be delayed longer than ten (10) minutes waiting for the loading to be completed, and Suburban Passenger trains must not be delayed longer than five (5) minutes. If they are not loaded within the time stated, they must be left behind, and the Senders advised accordingly.

**9.** (a) Live Stock trucks must not be overloaded. Weak stock should be given plenty of room. As far as practicable, animals of uniform size should be kept together, as when large and small animals are loaded in the same truck, there is a danger of the smaller ones getting down.

(b) When mixed consignments of horses and cattle are to be forwarded in the same truck, the different kinds of animals should, when loaded, be separated by a hurdle if there is any risk of injury or cruelty involved. The hurdle must be provided by the Sender; see clause 44.

(c) Pigs and Calves must not be conveyed in the same truck without being separated by a hurdle.

(d) Calves must not be loaded in Sheep trucks.

**10.** Live Stock in trucks must be kept away from the passenger platforms as much as possible, and care must be taken to prevent the animals from being disturbed or frightened.

**11.** (a) The Department undertakes the loading and unloading of Live Stock (horses loaded in horse-boxes excepted, for which see pages 513-520). The Station-master may employ temporary labour to perform the work when actually necessary, but must in all cases advise the Live Stock Agent and the District Superintendent, giving the following particulars:—Names of men employed, length of time, number of trucks, date of loading and unloading, and amount paid. The Station master should, however, with the assistance of the men in charge of the stock, be able to attend to small consignments of less than four trucks. This matter must be given close attention, and expenses kept down.

(b) In the event of it being necessary to employ outside labour at any of the under-mentioned Stations, and such is not available in the

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vicinity, the Station-master must apply to the Road Foreman for assistance, giving at least one day's notice, stating the nature of the work to be performed, and whether he considers lad labour would be suitable:—

Bannockburn	Dooen	Kilmore East	Nathalia
Barnawartha	Dookie	Knowsley	
Barrakee	Drysdale	Koyuga	Prairie
Birchip			
Bonnie Doon	Grassdale	Lang Lang	Quambatook
Boolarra	Gredgwin	Lubeck	
Boorcan		Litchfield	Ravenswood
Branxholme	Hawkesdale		
Buckrabanyule	Henty	Maindample	Sheephills
	Hopetoun	Meredith	
Caldermeade	Huon	Mincha	Tandarra
Craigieburn		Mitiamo	Tongala
	Irrewarra	Monomeith	Tourello
Derby		Morton Plains	
Dingee	Kerang	Myrtleford	Watchem
Donnybrook	Kiata		Wycheproof

(c) The Road Foreman, upon receipt of such application, must arrange to supply the required assistance, unless, owing to works of an urgent nature, sufficient Way and Works Branch employes cannot be spared.

(d) If Trackmen be employed, the time occupied by them in going to and coming from the Station, in addition to the actual time employed in loading or unloading, as the case may be, must be debited to the Transportation Branch.

(e) The Station-master must keep a record of the time that the Trackmen were employed, and advise the Live Stock Agent and the District Superintendent.

**12.** When loading or unloading horses or cattle, they must be counted; sheep or pigs need not be counted, except when consignments are forwarded at half or two-thirds truck rate. The Commissioners accept no responsibility as to numbers.

**13.** As soon as the Live Stock is loaded, care should be taken to see that the truck doors are properly closed, and the fastenings made secure. Any case of insecure fastenings, or fastenings improperly adjusted, must be reported to the Live Stock Agent.

**14.** Live Stock must not be booked until it has been loaded.

**15.** (a) The particulars shown on Live Stock Waybills must be accurate, and a separate waybill must be made out for each consignment. The full names of the Senders and Consignees, the truck number, and in the case of horses, cattle, sheep, or pigs in less than truck loads, the number of animals consigned must be shown. The Waybills must be sent open, in charge of the Guard, by the same train as the stock. They must not be attached to the trucks.

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(b) Live Stock in trucks forwarded from a Victorian Station to Wodonga for transfer to a Station in New South Wales must be way-billed to Wodonga, but the ultimate destination must be shown on the face of the waybill.

(c) Truck Cards must be placed on each vehicle (**both sides**), showing the following particulars:—Sending and Receiving Stations, truck number, date of loading, and name of Consignor and Consignee. When a Sheep truck is fitted on one side with two clips, the truck Card must be placed in the bottom one. Guards, before leaving Stations where trucks of Live Stock are attached to the train, must be careful to see that the trucks are properly carded on both sides, and that the cards show full particulars.

16. At Seymour and Bendigo and other Stations where trains are divided, the splitting of consignments containing more than one truck should, as far as possible, be avoided, but where this is impracticable, and Live Stock forming one consignment is forwarded by different trains, the waybill **must** be sent with the first portion, and Pro Forma Waybills made out for and forwarded with the remainder.

17. (a) The following weights for Live Stock are to be shown on the waybills, and these are to be recognised in computing train loads:—cattle or horses, full truck, 5 tons 10 cwt.; sheep, two tiers, 4 tons 10 cwt.; sheep, one tier or one goods or cattle truck, 2 tons 5 cwt.; pigs, one tier of sheep truck or one goods or cattle truck, 3 tons 5 cwt.; pigs, two tiers of sheep truck, 6 tons 10 cwt.

When a truck is only partly loaded the content weight may be computed in accordance with the scale shown hereunder:—

Horses or Cattle . . . . .	10 cwt. each
Calves . . . . .	2 „ „
Pigs . . . . .	1 „ „
Sheep . . . . .	$\frac{3}{4}$ „ „

(b) South Australian bogie cattle trucks, whether loaded with horses or cattle, are to be reckoned as 24 tons, i.e., Tare 14 tons; contents 10 tons.

18. (a) If Sheep trucks are not available when required, the Depot Station-master must arrange to supply suitable goods or cattle trucks, care being taken to see that trucks with defective floors are not used. In such cases two "M," "H," or "I" trucks are to be charged as one "L." When "H" trucks are used, they must have grated doors.

(b) The floors of some cattle trucks are unsuitable for the conveyance of sheep or pigs; all cattle trucks supplied in place of sheep trucks must, therefore, be carefully examined, at the Depot Station, and only those with suitable floors used.

19. When "I" trucks are used for sheep loading arrangements must be made for screw couplings to be supplied.

20. Cattle trucks numbered from 319 to 418 inclusive are LARGE trucks. When advising Depots as to cattle trucks on hand, care should be taken to specify whether they are large or small.

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**21.** If at any time Live Stock should arrive at a Station for transit, and there are either no trucks or an insufficient number of trucks on hand, or if advice has not been received regarding the conveyance of such stock, the Live Stock Agent, the Superintendent of Melbourne Yards, and the Depot Station concerned must be immediately communicated with by wire. Arrangements should be made to obtain the necessary trucks without delay, and the Station-master must wire full particulars, and, when ordering the trucks, state exactly how many are required, and, as well, give the names of the Consignor and Consignee, and the destination.

**22.** In telegraphing particulars with reference to Live Stock trucks the letters "L" and "M" are not to be used. The trucks must be referred to as **Sheep** and **Cattle** trucks respectively, large or small being specified in the case of the latter.

**23.** Should arrangements be made for Live Stock to be loaded into a truck, or unloaded out of a truck, at one or more Stations en route, an additional charge of five shillings must be added to the freight for each occasion; the truck must be despatched from the Station at which it is scheduled to commence the journey, and that Station must raise the debit, charging full freight whether any stock is loaded or not. Full particulars must be plainly endorsed on the Waybill for the Guard's information, and Guards must carefully read the Live Stock Waybills and note any endorsements that may be made thereon concerning the picking up of Stock or the loading or unloading arrangements.

**24.** (a) When Live Stock has to be unloaded and reloaded before reaching its final destination, particulars must be endorsed across the waybill at the sending Station, and the Station-master or other responsible employe at the re-loading Station must strike out this endorsement and make another, showing that the animals have been attended to, and giving the time and date of re-loading. The endorsements must be made plainly with red ink.

Example.—Assuming that stock is to be sent from Colac to Echuca on the 9th March, and that it is to be unloaded and reloaded at Newmarket, the Waybill should be endorsed at Colac—

"Animals to be unloaded and re-loaded at Newmarket."

After the stock has been attended to at Newmarket, this endorsement should be scored out and the following substituted—

"Re-loaded at Newmarket 10 p.m., March 10th," or, as the case may be.

(b) The Truck cards in the first instance must be made out to the Station where the stock will be unloaded, and when it has been reloaded, fresh cards must be made out for the remainder of the journey.

**25.** Empty sheep and cattle trucks, when sent away for Live Stock traffic, must be waybilled, and Guards should see that waybills are furnished.

**26.** Live Stock trucks, whether loaded or empty, must be forwarded to their destinations with the least possible delay. They should in every instance be treated as "urgent," and not be removed from the train to make room for ordinary loading. Live Stock must not be unnecessarily delayed at Junction Stations.

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**27.** (a) When sheep trucks are supplied for loading pigs, and only the bottom tiers are used, cattle truck rate must be charged, but when both tiers are used, full sheep rate and a third must be charged.

(b) Where arrangements are made for pigs to be loaded into passing trains, the starting Stations must, as far as possible, load their consignment in the bottom tiers, if loaded in sheep trucks.

(c) In order that the loads of sheep trucks shall be evenly distributed from despatching to destination Stations, Officers in charge of Stations at which pigs or sheep are loaded into passing trucks, and Guards in charge of trains conveying such stock must arrange so that each bottom compartment shall be loaded first, then each top compartment, alternately, from opposite ends of the truck. As far as practicable, the first compartment to be loaded should be at the leading end of the truck.

**28.** Subject to the marshalling instructions (see pages 406-411), loaded sheep trucks with open ends may be placed next the engine, if necessary.

**29.** Reduced rates for Live Stock must not be charged without the authority of the General Passenger and Freight Agent or the Live Stock Agent.

**30.** Live Stock trucks must be inspected before loading is commenced, and if dirty trucks be supplied, the Station-master must arrange for them to be cleaned as well as possible.

**31.** The Station-master at any Station where Live Stock is loaded, as well as the Station-master at the Depot Station, must see that the screw couplings on Live Stock trucks are clean and in good order, and that they are properly adjusted.

**32.** The Station-master at any Station from which a Mixed or Goods train starts must fully instruct the Guard as to any Live Stock that requires to be picked up at any Roadside Station, and the Station-master at the Loading Station must in all cases advise by wire the Station which controls the train loading, of the number of trucks to be forwarded, and the trains by which they are to be conveyed.

**33.** Unless the owner accepts all risks, and undertakes the unloading, and signs the Special Requisition Form (see specimen Form in the Goods Rates Book), sheep trucks are not to be loaded for Stations where there are no Sheep Races or other convenient means for unloading the top tiers. Goods or cattle trucks may be loaded without the Special Requisition Form being signed.

**34.** Unless specially ordered by the Live Stock Agent, preference must not be given to any particular person or firm in the supplying of large trucks. With this exception, Live Stock must be loaded into the first trucks available, irrespective of whether such trucks be large or small.

**35.** If Live Stock be not taken delivery of within a reasonable time after arrival, the Live Stock Agent and the Sending Station must be communicated with by wire. Steps should also be taken to advise the Consignee.



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**36.** (a) Should Live Stock be unduly delayed in transit, and the owner or the agent fail to make arrangements for food and water, the person in charge of the Station at which the delay occurs must do so, and, if reasonably practicable, the animals should be discharged and re-loaded. This applies also to animals that may not be taken delivery of within a reasonable time. Any expense incurred must be charged to the owner. The Live Stock Agent must be advised by wire in every case, and full particulars given.

(b) If it be necessary to cancel a Goods train by which Live Stock is booked, other suitable arrangements must be made for its conveyance, and all concerned fully advised. The Station-master at the Station from where the controlling arrangements are made must confer with the Live Stock Agent and the loading Station, so as to avoid any misunderstanding. Animals must not be kept in the trucks any longer than is necessary.

**37.** A municipal by-law prohibits the driving of Live Stock from the Newmarket Railway Yards to the Corporation Sale Yards between the hours of 6 a.m. and 10 p.m., and it is important, therefore, that trains conveying Live Stock should not be delayed, more especially when the stock is forwarded by late trains. It is imperative that delivery be given at Newmarket not later than 5 a.m. (See page 520 for instructions as to reducing train loads, if necessary.)

**38.** (a) Before Live Stock is unloaded, care must be taken to see that the gates of yards are securely fastened. If the animals are to remain in the yards all night, or for any length of time, the gates should be locked.

(b) The Station-master must examine the Sheep and Cattle Yard after each day's trucking, and promptly notify the Works Foreman for the Section of any damage that may be done, so that the necessary repairs may be promptly effected.

**39.** Before any shunting is done with Live Stock trucks, the doors of cattle trucks must be securely fastened, and the flap doors and gang boards in the Sheep Races moved clear of the trucks. Gates at Cattle or Sheep Yards which open outwards towards the Line must, when not in use, be closed clear of the Line, and properly secured in that position. At any place where provision is not made for securing the gates or where the fastenings are defective, the matter should be brought under the notice of the Live Stock Agent. When visiting Stations, District Officers and Inspectors should, whenever opportunities offer, make a point of looking at such gates in order to see that this instruction is complied with.

**40.** Sales of Live Stock must not be allowed to take place in any Railway Cattle Yard without the authority of the Live Stock Agent, neither must the Yards be hired for any purpose without the like authority.

**41.** When Cattle Yards are used for drafting or camping purposes, a report must be forwarded to the Live Stock Agent, giving particulars of the number and class of animals yarded, and the charge made. The amount collected must be remitted in the usual way.

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**42.** Wild cattle must not be allowed in Sheep Yards, as the fences are liable to be damaged by them. Horses must not be tied up to Sheep Yard Fences.

**43.** (a) In all cases where single animals are transported in trucks the Officer-in-charge at the loading Station should advise the Agent concerned to have the animal tied to the side of the truck. This matter should be given close attention.

(b) Railway lashings must not be supplied for the purpose of fastening animals in trucks; senders must provide their own ropes.

**44.** When Senders place hurdles in trucks, they must use screws and not nails to fix them, and care must be taken to see that all such screws are drawn when the hurdles are taken away. Trucks must be carefully examined, and projecting nails or screws removed.

**45.** Consignors must not be allowed to place straw in sheep trucks, as there is a danger of it catching fire through sparks from the engine.

**46.** Before delivery is given, a "Good Order" receipt must be taken on the Waybill for all Live Stock, including Racehorses.

**47.** Unenclosed memos. from Senders containing particulars of consignments of Live Stock for the information of the Selling Agent may be attached to the waybills. These must be handed to the Agent when delivery is taken. Guards must be careful not to detach such memos. on the journey.

**48. (a) Depots and Sub-Depots.**—The Station-master at any Depot or Sub-Depot will be held responsible for keeping a daily record of the sheep and cattle trucks (loaded or empty) forwarded to Stations in his Section, and for noting how they are disposed of. The Station-masters at Depot Stations must see that Live Stock trucks required by Sub-Depot Stations are supplied in time.

(b) The Station-master at every Station where there are sheep or cattle trucks on hand must advise the Depot or Sub-Depot controlling his Station of the number by wire, not later than 9 a.m. daily; the Station-master at every Sub-Depot must wire his Depot by 10 a.m.; and the Station-master at every Depot must wire the Live Stock Agent, and the Superintendent of Melbourne Yards, not later than 11 a.m., stating how many trucks he has in his Section, and the number, if any, required to complete orders.

DISTRICTS.	DEPOTS.	SUB-DEPOTS.	STATIONS TO BE SUPPLIED WITH TRUCKS.
Northern	Bendigo	KorongVale	Robinvale and Kulwin Lines
		Kerang ...	Koondrook Tramway, Murrabit Line, and Stations Fairley to Yungera
	Bendigo ...	Echuca ...	Deniliquin and Balranald Lines
		Elmore ...	Cohuna Line
"	Bendigo ...	—	Golden Square to Echuca, Korong Vale, Wedderburn, Kerang, and Derrinal
"	Kyneton ...	—	Redesdale Line
"	Clarkefield ...	—	Bolinda to Lancefield inclusive
Midland...	Woodend ...	—	Tylden to Daylesford inclusive
"	Maryborough...	—	Maryborough to Donald, Bullabul and Avoca

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Midland ...	Maryborough	Donald ...	Lake Buloke to Yelta, Redcliffs to Merringur inclusive
		Ouyen ...	Pinnaroo Line
"	Castlemaine ...	—	Castlemaine to Shelbourne, Carisbrook, and Kangaroo Flat inclusive
N.-West'n	Ararat	Lubeck ...	Marnoo Line
		Murtoa ...	Patchewollock Line
		Horsham ...	Kanagulk and Goroke Lines
	Ararat	Dimboola ...	Yaapect and Yanac Lines, and Gerang to Serviceton
		Hamilton ...	Coleraine Line, Kannawalla to Balmoral and Yatchaw to Warrong inclusive
		Branxholme	Casterton Line
"	Ararat	Heywood ...	Ararat to Dimboola, Portland, Amphitheatre and Navarre
"	Ballarat	—	Ballarat to Dobie, Ballarat East, Skipton, Werneth, Waubra, Buninyong, Daisy Hill, and Broomfield to Woodburn inclusive
"	Colac	—	Crowes (Narrow Gauge) and Alvie Lines
S.-West'n	Geelong	Moriac ...	Wensleydale Line
		Birregurra ...	Forrest Line
		Camperdown	Timboon Line
		Terang ...	Terang to Port Fairy and Mortlake
		—	Geelong to Terang, Queenscliff and Navigator
N.-East'n	Wangaratta ...	—	Murgheboluc to Tatyoon
	Benalla	—	Ondit to Barpinbah inclusive
"	Benalla	—	Whitfield (Narrow Gauge) Line
"	Benalla	Wangaratta	Winton to Wodonga, Yarrawonga and Tatong Lines
"	Benalla	Springhurst	Yaekandandah and Bright Lines
"	Seymour	Wodonga ...	Wahgunyah Lines
"	Seymour	Murchison E.	Cudgawa Line
"	Seymour	Toolamba ...	Colbinabbin and Girgarre Lines
"	Seymour	Shepparton ...	Tatura to Koyuga inclusive
"	Seymour	Numurkah ...	Katamatite Line
"	Tallarook	—	Picola, Cobram and Tocumwal Lines
"	Wallan	—	Seymour to Baddaginnie and Numurkah
Eastern ...	Traralgon	—	Alexandra and Mansfield Lines
"	Traralgon	Sale ...	Leslie to Heathcote
"	Traralgon	Maffra ...	Traralgon to Sale and Stratford
"	Traralgon	Stratford ...	Montgomery
"	Warragul	Morwell ...	Briagolong Line
"	Warragul	Moe ...	Munro to Orbost
"	Warragul	—	North Mirboo Line
"	Warragul	—	Thorpdale and Yallourn Lines
"	Warragul	—	Noojee Line and all Stations Warragul to Traralgon
S.-Eastern	Moe	—	Walhalla (Narrow Gauge) Line
"	Dandenong	—	Dandenong to Korumburra
"	"	Koo-Wee-Rup	Strezlecki Line
"	"	Nyora ...	Wonthaggi Line
"	"	Korumburra	Korumburra to Outtrim, Port Albert and Woodside
"	Caulfield	—	Caulfield to Stony Point, Mornington and Red Hill
Eastern ...	Lilydale	—	Lilydale to Healesville, and Lilydale to Warburton
Various ...	Upper F.T.G.'ly Superintend't of Melbourne Yards	—	Gembrook (Narrow Gauge) Line
		—	Flinders-street to Lilydale, Upper Ferntree Gully and Kew, and Burnley to Darling
		—	All other Stations not specified above

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**49.** In the daily telegraph messages from Depots and Sub-Depots, the number and classes of trucks on the Section, the number to be loaded each day according to advices, and the number required to complete orders or to spare; also the last train that trucks should be sent by, so as to reach the loading Stations in time, must be stated. Care should be taken to include trucks that are loading into the various Sections, of which a proper record should be kept.

**50.** The following is the form in which particulars are required, viz. :—

“6 a.m. Down arrived. On section 20 sheep, 10 large, 10 ordinary cattle trucks; load Wednesday 10 sheep, 5 large, 5 ordinary cattle; Thursday, 15 sheep, 6 large cattle; Friday, 15 sheep, 2 large, 2 ordinary cattle. Have spare 3 ordinary cattle, 10 sheep discharging Portland Wednesday, will be available for Friday. Require 10 sheep, 3 large cattle to complete orders, 5 sheep, 1 large cattle must reach me in time to leave per No. 1 Down to-morrow.”

**51.** The Station-masters, Sub-Depot Stations, must keep in close communication with Depot Stations as to their requirements, and ascertain what arrangements are being made to supply trucks. The Station-masters, Seymour, Tallarook, Wallan, Ballarat, Geelong, Bendigo, Maryborough, Castlemaine, Kyneton, Woodend, Clarkefield, Warragul, Dandenong and Caulfield should wire the Superintendent of Melbourne Yards, and ascertain in good time when trucks will be supplied.

**52.** In connection with the Live Stock business it is necessary that accurate records of trucks be kept. Special trains may be run, when necessary, to place empties in time for loading.

**53. Loading One Tier of Sheep Trucks.**—When there is not a sufficient number of sheep for a full truck load, and only one tier requires to be loaded, the bottom tier only must be used—not the top and bottom compartments at one end. See sub-clause (c), clause 27.

**54. (a) Use of Cattle Trucks in Goods Traffic.**—Subject to clause 6 on page 503 of this Book, when cattle trucks are not required for Live Stock traffic, they may be used for the conveyance of ordinary goods not liable to become tainted. Fruit, Fruit-cases, Milk, Butter, Butter-boxes, and similar articles or commodities must not, however, be forwarded in them.

Provided they can be sent away on the same day that they are loaded, they may be utilised as under:—

**Up to Thursday Afternoon** — At Stations within the radius of Stawell, Terang, Echuca, Korong Vale, Kerang, Cobram, Picola, Tocumwal, Wodonga, Sale, Stratford, and Korumburra, with grain for Spencer-street; or grain or wood for Arden-street, or for **North** Suburban Stations.

If loaded with grain at places **beyond** the radii of the Stations named, it must be for either Spencer-street or Arden-street only.

**On Friday**—At Stations within the radii of those shown in the foregoing, but for Spencer-street and Arden-street only.

## LIVE STOCK TRAFFIC.

**On Saturday, Monday, and Tuesday**—They must not be used for general purposes unless specially authorised.

(b) In the Up direction, preference should, as far as possible, be given to loading for Spencer-street or Arden-street. Cattle trucks must not be loaded for Williamstown Pier, Victoria Dock, or Stations on the **South** Suburban Lines unless by special orders from the Live Stock Agent or the Superintendent of Melbourne Yards.

(c) When cattle trucks stand at Stations, and cannot be used for ordinary loading as shown, or when they arrive loaded inwards on Saturday or Monday, the Depot must be communicated with, and advice will be sent as to their disposal.

(d) Cattle trucks used in Goods traffic must not be disposed of without authority from the Live Stock Agent, the Superintendent of Melbourne Yards, or the Depot Station-master.

**55. The Live Stock Agent must be promptly advised by wire when from any cause his arrangements are not adhered to; full particulars must be given in every such case.**

### ORDERING, LOADING, UNLOADING, AND CONVEYANCE OF HORSE-BOXES, ETC.

**1. Ordering and Supplying of Horse-boxes.**—(a) When a Station-master receives an order for one or more horse-boxes he must, before accepting the order, communicate with the Live Stock Agent, and ascertain whether they can be supplied. The following particulars must be given:—Date of loading, number of animals (if stallions, state so), names of Consignor and Consignees, destination of consignment and train desired to be sent by.

The Live Stock Agent's Office is open from 9 a.m. to 4.30 p.m., Saturdays excepted, and on Saturdays from 9 a.m. to 12 noon.

(b) When the Live Stock Agent's Office is closed, urgent orders shall be dealt with by the Station-master, Spencer-street. If, however, any order of special urgency be received, and there is not sufficient time to permit of either the Live Stock Agent or the Station-master, Spencer-street, being consulted, the Station-master at any one of the Stations (hereinafter referred to as Depots) named in clause 18 may authorise the acceptance of such order, provided there is room on train, and it is certain that such acceptance will not interfere with orders already taken. In every such case the Depot Station-master must promptly advise the Live Stock Agent and the Station-master, Spencer-street, of the action taken.

(c) Except in respect of Whittlesea trains, orders for horse-boxes to be conveyed by Suburban Passenger trains will not be accepted, unless specially authorised by the General Superintendent of Transportation.

(d) When orders for horse-boxes have been definitely accepted, the Live Stock Agent will advise the destination Station, as well as all changing and Depot Stations en route, and furnish particulars of the consignments in accordance with sub-clause (a), of clause 1.

## LIVE STOCK TRAFFIC.

**2.** (a) Station-masters at Stations where horse-boxes are on hand must advise the Live Stock Agent by wire not later than 8 a.m. daily of the number on hand. Form T.R. 58A (Report of horse-boxes at Stations at 7 a.m.) and T.R. 58B (Horse-box movement Report) must be used for this purpose; instructions in regard to their use appear at the foot of these Forms.

(b) When telegraphing these particulars, the numbers must be transmitted in words.

**A record of horse-box movements will be maintained in the Live Stock Agent's Office, and in order that such record shall be accurate, it is of the utmost importance that the distinguishing number on each horse-box be shown on the above-mentioned Forms.**

**3.** Whenever it is reasonably practicable, empty horse-boxes must be worked to the loading Station by Goods train.

**4.** Station-masters at Depots must keep a record of the horse-boxes entering their respective sections, and see that such vehicles are dealt with according to requirements. When instructions are issued to work spare horse-boxes to Melbourne, or elsewhere, all those not actually ordered must, exclusive of the local allotment, be forwarded.

**5. Loading and Unloading, Etc.**—(a) The attention of Station-masters and other employes concerned is particularly directed to the necessity for seeing that Risk Notes for horses or other animals are always properly signed by the Consignors; if the Sender or person in charge of the animals cannot write, he must make his mark, and the animals must not be accepted for conveyance unless this instruction is complied with.

(b) Consignors or their Agents must attend to the loading, unloading and securing of horses; employes must, however, properly secure the fastenings of the compartments and doors after the animals are loaded. Due care must be taken to see that the doors are locked and secured with the safety clip, and that partitions are properly fastened.

**5a. Carding of Horse-boxes.**—(a) Truck cards showing the following particulars must be placed on both sides of each loaded horse-box:—Sending and destination Stations, horse-box number, date of loading, and name of consignee.

(b) Guards, before leaving Stations, where horse-boxes are attached, must be careful to see that the horse-boxes are properly carded on both sides, and that the cards show the necessary particulars. The Card must be removed from each side of the horse-box immediately the horses are discharged at destination.

(c) Doors of empty horse-boxes, whether on trains or standing at Stations, should be kept locked, and the head stalls properly secured in order to prevent them from swinging and thus damaging the hinge-studs.

(d) During the loading or unloading of horses, due care must be taken to see that there is a clear approach to the vehicle, and that there is a firm footing, free from holes; the man in charge of each horse should go first and lead or back the horse into the vehicle. When several horses are to be loaded, only a limited number should be allowed on the platform or the dock approach at the same time.

(e) When two or more horses are being conveyed in the same horse-box they must be stalled so that their combined weight will, as far as possible, be distributed evenly over each axle.

**6.** When horses are loaded together for different Stations, or when there are any different consignments for the same Stations, and the animals are not accompanied by attendants to identify them, an addressed label must be attached to the halter of each animal; care must be taken to load horses into horse-boxes in Station order, so that, on the journey, one horse will not have to be shifted to unload another.

**7.** Horses loaded at Caulfield for despatch to Country Stations from Spencer-street, or arriving at Spencer-street ex Country Stations for Caulfield, must be forwarded to or from Spencer-street as per special schedule shown in the Working Time Table.

**8.** When several horses are to be loaded for the Defence Department, the number of animals for each place must be ascertained, and arrangements must be made for every vehicle to have the Station names (in Station order) and number of horses to be loaded into it chalked on the side; the Station-master must appoint a competent employe to perform this work and to prepare a list showing the order and loading of each horse-box, a copy of which should be handed to the Commanding Officer. The Station-master must see that the Commanding Officer is supplied with this list, and all other necessary information regarding the loading arrangements.

**9.** When there is a Race Meeting at Sandown Park, Mentone, Mordialloc, or Aspendale, the load of the Down Horse Special leaving Caulfield must not exceed equal to 16 vehicles. On the night before each Race Meeting the Station-master, Caulfield, must notify the Station-master, Flinders-street, of the number of horse-boxes that will be loaded at Caulfield. If, when the train ex Newmarket arrives at Flinders-street, it be found that the load of the train leaving Caulfield would be in excess of that laid down above, the Station-master must arrange for all the horse-boxes to be detached and for two carriages to be added to those already on the train, which must be despatched as a Special Passenger Train preceding the Horse Train. Only those attendants who can be accommodated in the horse-boxes are to be allowed to travel by the Horse Train.

**10.** When there are nine or more horses in the combined consignments from Mordialloc and Mentone for a Suburban Race Meeting, a Special train may be arranged; the Station-master, Mordialloc, must promptly advise the Stationmaster, Spencer-street, of the particulars, and the latter must arrange the Special train, advising all Stations; the

## LIVE STOCK TRAFFIC.

Caulfield horses must be loaded into the Up Special. On the return journey horses for Caulfield, Mentone or Mordialloc must be sent by the Special, and the Station-master, Mentone or Mordialloc, as the case may be, must arrange for the return of the empty Special.

**11.** (a) Horses consigned to a Roadside Station may be unloaded at the platform whilst the train waits, provided the delay will not exceed that specified in sub-clause (c) of clause 8, page 504; the empty horse-box must be sent on to the nearest Station at which it can be detached without causing delay to the train.

When, however, horses are conveyed to Race Meetings, and will be returned on the same day as they arrive, or the following day, the boxes in which they arrive may be reserved for them; the Station-master at the receiving Station must arrange accordingly, and advise the Live Stock Agent.

(b) The number of the horse-box into which horses returning from races are loaded, must be endorsed on the Waybill.

**12.** (a) Horses must not be accepted for conveyance by the 11.55 a.m. Up Northern Line Passenger train, nor for No. 12 Up ex Warragul, and, unless instructions are issued to the contrary, horse-boxes must not be attached to the first Down Country Passenger trains from Melbourne on Mondays.

(b) When horse-boxes loaded for any Station, and intended for transfer at Spencer-street or Flinders-street, the Station-master at the sending Station must wire the Superintendent of Melbourne Yards, the Station-master, Flinders-street, and the Station-master, Spencer-street, specifying the Station (or Stations) to which the horse-box or horse-boxes are consigned and waybilled. This advice is important in order that prompt arrangements may be made for the transfer.

(c) When horses loaded in horse-boxes are forwarded to Melbourne by Goods train, the Station-master, Spencer-street, the Superintendent of Melbourne Yards, and the Melbourne Goods Superintendent must be advised by wire, so that arrangements may be made for delivery to be taken at the Pig Dock.

**13.** (a) When attendants accompany the horses by night, the horse-boxes must be lighted.

(b) Horse trappings, such as rugs, saddles, bridles, etc., are carried free in horse-boxes, at the risk of the owner.

(c) **Gas Lighted Horse-boxes.**—With a view to preventing failures of gaslight in horse-boxes, it is essential that every opportunity be taken to gas them to full capacity; Pintsch-gas Depots must so arrange. When gassing, and at other suitable times, examination must be made to see that the gas has been turned off (unless light is required). Every care must be taken to economise the gas. A reasonable time must be allowed, when lighting, to permit air to be blown out of and the gas to course through, the pipes. When horses are discharged or light is no longer required, the gas must be extinguished by operating the controls provided; the Staff dealing with horse-boxes must be provided with gas keys.



## LIVE STOCK TRAFFIC.

Particular attention should be given this matter at Spencer-street, Flinders-street, Newmarket, Caulfield, Mordialloc, Kyneton, Ballarat, Geelong, Seymour and Warragul. Down Side Depots must see that the gas is extinguished in boxes which leave Melbourne on early morning trains.

**14.** (a) Before delivery is given, a "Good order" receipt must be taken on the Waybill for all horses, racehorses included.

(b) In the event of any complaint being made to the effect that a horse has been injured, either when loading or unloading, or in transit, the Station-master must be informed by the employe in charge of the loading or unloading, before permitting the horse to be taken away.

**15.** (a) The Guard of any train conveying empty or loaded horse-boxes is responsible for seeing that all doors are securely locked from the point when such vehicles are attached to the train until their destination is reached.

(b) At Attaching Stations, and wherever practicable during the journey, the Guard must enter every loaded horse-box on his train, in which no attendant is travelling, and satisfy himself that the animal or animals are in the same position as when loaded, and that they are properly secured. Should a horse be found injured or "Down," or in an unusual position, or to have slipped his headstall, the attention of the Station-master must be drawn to the fact, in order that proper steps may be taken to have the animal attended to.

(c) Whenever loaded horse-boxes have to be shunted or moved by an engine, the Driver must be informed that the vehicles are loaded. The Driver must exercise due care to avoid jolting when starting or stopping.

**16. Cleaning of Horse-boxes.** — (a) When a horse-box is unloaded it must be properly cleaned, and the grooms' compartment dusted, before it is again used or despatched. Before horse-boxes are loaded, they must be examined, and if found to be dirty, arrangements must be made to have them cleaned. Horse-boxes arriving at Spencer-street by Passenger trains must be placed in the Horse Dock, and those arriving by Goods train must be placed in the Pig Dock. Horse-boxes arriving at Flinders-street Station must be placed in the Wash Dock or other convenient place; the Rolling Stock Branch will, upon advice being given, arrange to have them cleaned as soon as possible after they are placed.

(b) Every horse-box on hand at Spencer-street or Flinders-street on Saturday night, or any that may be in an unusually dirty condition at any time must, unless it can be properly dealt with elsewhere, be sent to the Wash Dock, North Melbourne, to be thoroughly washed and disinfected.

At Ballarat and Bendigo horse-boxes on hand must be washed out and disinfected weekly.

The Superintendent of Melbourne Yards and the Station-masters concerned must have the boxes placed so that this can be done.

## LIVE STOCK TRAFFIC.

**17. Suburban Stations at which Horse-boxes can be Loaded or Unloaded.**— (a) The following are the only Suburban Stations at which horse-boxes may be loaded or unloaded:—

Newmarket, Broadmeadows, Reservoir, Laverton, Sunshine, Werribee, Dandenong, Spring Vale, Clayton, Oakleigh, Caulfield, Cheltenham, Mentone, Mordialloc, Carrum, Frankston, Box Hill, West Footscray, Canterbury, Deer Park, Croxton and Newport.

(b) Loaded horse-boxes may be sent to Essendon from any Station on the North-Eastern or Goulburn Valley Lines by any train except an Express train.

**18. List of Depots for Horse-boxes:—**

Depot.	Number and Class.	Districts.
Bendigo ..	5 F's ..	Deniliquin and Balrañald Lines, Koondrook Tramway, Westby to Murrabit, Epsom to Echuca, Elmore to Cohuna, Longlea to Derrinal, Eaglehawk to Kulwin, Wedderburn, Borung to Robinvale, Eaglehawk to Yungera.
Castlemaine ..	2 F's ..	Maldon Junction to Shelbourne or to Carisbrook.
Maryborough..	2 F's ..	Adelaide Lead to Avoca, Simpson to Yelta. Painswick to Bullabul, Pinnaroo and Merringur Lines.
Ballarat ..	5 F's ..	North Ballarat to Daisy, Pisgah to Waubra, Broomfield to Woodburn, Eureka to Buninyong, Cardigan to Skipton or to Werneth, North Ballarat to Dobie.
Ararat ..	2 F's ..	Armstrong to Wail, Maroona to Portland, Lyon to Mount Gambier, Miakite to Casterton, Bochara to Coleraine, Yatchaw to Warrong, Jackson to Marnoo, Coromby to Patchewollock, Remlaw to the Carpolac or to the Balmoral Line, Warra Yadin to Amphitheatre, Crowlands to Navarre.
Dimboola ..	1 F ..	Dimboola to Serviceton, Arkona to Yaa-peat or to Yanac.
Geelong ..	4 F's ..	South Geelong to Port Fairy, Mortlake, Naroghid to Timboon, Cororooke to Alvie, Ondit to Barpinga, Murgheboluc to Tatyoon, Whoorel to Forrest, North Geelong to Warrenheip, Moolap to Queenscliff.

## LIVE STOCK TRAFFIC.

## 18. LIST OF DEPOTS FOR HORSE-BOXES—continued:—

Depot.	Number and Class.	Districts.
Seymour ..	4 F's ..	Mangalore to Baddaginnie, Murchison to Colbinabbin and Girgarre, Tabilk to Cobram or to Tocumwal, Waaia to Picola, Pine Lodge to Katamatite, Tatura to Koyuga.
Wodonga ..	2 F's ..	Albury, Bandiana to Cudgewa.
Benalla ..	2 F's ..	Winton to Barnawartha, Lilliput to Wahgunyah, Londrigan to Yackandandah or to Bright, Chesney to Yarrawonga, Karn to Tatong.
Flinders-street	2 F's ..	Caulfield to Spring Vale, Glen Huntly to Stony Point, Balnarring to Red Hill, Moorooduc to Mornington, Hallam to Morwell, Hernes Oak to Yallourn, Hazelwood to North Mirboo, Coalville to Thorpdale, Lillico to Noojee, Lyndhurst to Whitelaw, Woodleigh to Wonthaggi, Bayles to Strezlecki, Box Hill to Healesville, Mount Evelyn to Warburton, Bayswater to Upper Ferntree Gully, Westgarth to Hurstbridge.
Traralgon ..	1 F ..	Glengarry to Maffra, Boisdale to Briarolong, Loy Yang to Orbost.
Korumburra ..	1 F ..	Jumbunna to Outtrim, Kardella to Woodside and Port Albert.
Spencer-street	6 FF's & balance of F's	All Stations not included above.

NOTE.—In addition to the above allotments, one F will be kept at Caulfield, at Bacchus Marsh and at Kyneton.

**19. Horses To or From South Australian Stations.**— (a) —Horses loaded in 6-wheeled horse-boxes at Victorian Stations for South Australian Stations beyond Murray Bridge or loaded at South Australian Stations for Victorian Stations on the Up side of Murtoa or Ouyen, must be transferred at Border Stations into South Australian or Victorian horse-boxes respectively. On receipt of advice that horses are being forwarded, the Station-master at the Border Station must wire the Live Stock Agent for a horse-box to be supplied.

(b) Horses loaded in bogie horse-boxes may be taken through to their destination without transferring.

(c) When an order is accepted at a Victorian Station, the Live Stock Agent will advise "Stock," Adelaide, in order that a South Australian box shall be in readiness at the Border Station.

**LIVE STOCK TRAFFIC.**

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(d) When horses are forwarded via Serviceton to any Station on the Wolseley to Narracoorte, Mount Gambier, Glencoe, Beachport, or Narracoorte to Kingston Narrow Gauge Lines, the Station-master, Serviceton, and "Stock," Adelaide, must be advised in order that South Australian horse-boxes may be provided in time.

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**LATE RUNNING OF LIVE STOCK TRAINS.**

1. To ensure, as far as possible, the punctual arrival of Live Stock at Newmarket on market nights, Station-masters must see that the Live Stock business is given special attention, and that every effort is made to effect quick despatch. Depot Station-masters must keep in touch with Stations loading Live Stock and ascertain how the ordinary and special trains in their respective districts are running; this will not, however, relieve Station-masters at Roadside Stations of responsibility for promptly communicating with the Depot Station-master in the case of a train being from any cause late or likely to be delayed.

2. (a) In all cases when Live Stock trains are running late or when it is known that they will leave the originating Station over 30 minutes late, Train Control Officer or District Train Running Officer must be promptly advised.

(b) When any train conveying Live Stock (other than a Mixed Train) is being despatched on a Monday or Tuesday, and such train is more than thirty minutes behind its scheduled time, the Depot Station-master, if unable to communicate with the Officer named in sub-clause (a) hereof, will be authorised to prohibit any roadside work, except Perishable and Live Stock, and, in exceptional cases, to reduce the load of the train, but in any such case he must notify such Officers and the Live Stock Agent as soon as practicable. A full report of the circumstances must be promptly forwarded to the Superintendent of Goods Train Service and District Superintendent by the first available train.

Unless specially authorised, Station-masters at Roadside Stations must not alter the arrangements made by the Depot Station-master.

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## Lighting of Trains.

### INSTRUCTIONS FOR THE USE OF PINTSCH GAS FOR THE LIGHTING OF CARS AND VANS.

**1. Supply of Gas.**—(a) At Stations where stationary Pintsch Gas Storeholders are installed, Station-masters must see that there is always a sufficient quantity of gas on hand. To ensure this a telegram must be sent to the Chief Engineer of Signals and Telegraphs, before 4 p.m., whenever the pressure falls below 120 lbs. to the square inch, as shown on the gauge or gauges on the cylinders.

(b) The wheel valve on each stationary Storeholder must be fully turned off at all times except when trains are being gassed. Gasmen must be careful to turn off these valves promptly after gassing is completed; they must not be left turned on during the intervals whilst waiting for trains to come in for gassing.

(c) The door of each Storeholder house must be kept locked at all times except when it is necessary for the Gasman or other authorised person to enter. The key, when not in use, must be kept in the Station-master's office, and must be obtainable at any time when required by the authorised employes.

(d) Should the key of the Storeholder house be lost or the lock or key be damaged, the Chief Engineer of Way and Works must be notified by wire.

(e) In any instance in which it is necessary to gas a train after the engine has been attached thereto, the Gasman may, if he consider it necessary, first give the Driver a card (see specimen below), and the engine must not be moved until the **same Gasman** has withdrawn the card.

NOTICE  
TO  
ENGINE-DRIVER.

This train is now being Gassed and must not be moved until this card has been collected by Gasman.

(f) Automatic shut-off valves are being fitted to all cars running on Country Lines. The action of these valves is, that if the filling hose be removed from the filling valve before the valve is properly closed, the gas in the cylinders will be shut off from the lamps. Care must, therefore, be taken to see that the filling valves on the cars are closed **before** the gas hose is disconnected from the car—otherwise the gas will begin

## LIGHTING OF TRAINS.

to escape from the cylinders, and this escaping gas will close the shut-off valve, which will prevent any more gas from escaping, and at the same time cut off the supply from the lamps.

Should this occur, or should the shut-off valve become closed, from any cause, the gas hose must be again connected to the filling valve on the car in the usual manner, and the gas must then be turned on to the cylinders for a few seconds; this will open the shut-off valves and allow the gas to flow into the pipes and reach the lamps. The filling valves must then be closed, and the hose disconnected. These valves must not be interfered with in any way.

(g) Care must be taken to avoid filling holders under cars to an unnecessarily high pressure, which tends to develop leaks, causing loss of gas and danger in case of fire. The pressure of gas in holders under cars must not exceed 8 atmospheres during the months of May, June, July, August, and 7 atmospheres during the remaining months of the year. Exceptions:—Dining Cars may be filled to a maximum pressure of 10 atmospheres throughout the year.

(h) When Gasmen have finished gassing a train the ground valve must be shut off.

(i) Any leakage or defect of any description in (a) the service pipes and ground plugs must be promptly reported to the Lighting Overseer, Signal and Telegraph Branch, Spencer-street, by wire; and (b) hoses or car fittings to the Train Lighting Inspector. Code address: Car-lights, Spencer-street.

**2.** (a) Sufficient gas will be provided in the cylinders of every suburban car and Van, and of every country car (including "G" cars when used on Country trains), and Van which is lighted with gas, to last for the period during which such car or Van will, under ordinary circumstances, be in running after dark, but the Station-master at any Country Depot, or Terminal Station at which a supply of gas is stored, must see that the supply in the cylinders is adequate for requirements until the completion of the journey.

(b) On every country train, the Guard must, before starting, examine each car, and satisfy himself that it has been provided with sufficient gas for the journey; and he must also similarly examine any car which may be attached to his train en route.

(c) The length of time which the gas in any car should last may be estimated from the state of the pressure gauges. The indicators on these gauges will drop one figure in—

3	hours in long	corridor cars			
4	"	cars equipped with	9	lights	
4½	"	"	"	8	"
5	"	"	"	7	"
6	"	"	"	6	"

(d) In any instance in which it is found that the supply of gas in any car is insufficient for the journey, the fact must be at once reported to the Station-master at the Station or Depot, and the Station-master must, if practicable, arrange for the cylinder to be refilled, or for the substitution of another suitable car.

## LIGHTING OF TRAINS.

**3. Turning Gas On or Off.**—(a) In cars of the following types, viz.:—A, AB, ABC, ABL, AC, APL, B, BL, BPL, X, XY, XYH, XYZ, Y, YH, and YZ, two taps are provided at the end and outside of each car, viz., a main tap, turned by a gas key, by means of which the gas is retained in, or allowed to circulate from the cylinder, and a bye-pass tap worked by a lever, by means of which the consumption of gas may be reduced to a minimum at times when it is necessary that the lamps should be lit, but when the lights are not immediately required. To turn the gas full on, the main tap (the lower) must be turned until the notch in the end of the plug of the tap is upward, or, in other words, until the two small knobs on the cross handle of the gas key are in the same direction as the notch, and to turn the gas down low, the bye-pass lever must be pushed or pulled across the end of the car.

(b) In most CV Vans a combined main tap and bye-pass tap is placed in the vestibule passage, and has three positions, viz.:—(1) Turned out—Tap to extreme right; (2) On bye-pass—Tap to extreme left; (3) Full on—Tap midway.

*NOTE.*—In Dining, Sleeping and Parlor Cars a supply of gas is provided for heating purposes only, and in BDSE Mail Vans for the use of Postal employes.

(c) In AV and BV cars and a few CV Vans, two taps, viz., a main tap (the lower) and a bye-pass tap (the upper), are placed inside the car (usually at the end next to the smoking compartment) at the connecting portion between the vehicles, and inside a small opening, or under a trapdoor which can be opened with a car key. The gas is turned on or off with an ordinary gas key, and when the crosshead of the main tap is pointing upwards the gas is on full, and when the arrow of the bye-pass tap is pointing to the side the gas is turned down low.

(d) In cars with end platforms, a main and a bye-pass tap are placed inside a box under the roof of the platform. This box is opened with a car key, and the taps are operated in the same manner as shown in sub-clause (c) hereof.

(e) In C Vans a main tap only is provided at the end of each Van, but the light may be controlled by means of a tap placed on the inside of each lamp.

(f) In most South Australian cars a main tap only is provided, the notch of which turns in the opposite direction to that described in sub-clause (a), and the gas is full on when the notch is downward.

(g) **"G" CARS WITH FITTINGS FOR BOTH ELECTRIC AND PINTSCH GAS LIGHTING.**—The "G" cars with dual lighting, used on the Suburban electric services, have fittings which permit them to be electrically lighted when in use on electric trains, and to be lighted with Pintsch gas when used on steam services. These cars are occasionally withdrawn from the electric services for country excursion traffic; whenever this is done, the following instructions are to have effect:—

Upon directions being given for withdrawal of "G" cars from the electric services for use on steam trains, the Superintendent Melbourne Yards will require to arrange for this being done and for the

## LIGHTING OF TRAINS.

cars being suitably placed to permit of the Rolling Stock Branch overhauling the gas fittings and charging the cylinders with gas before the cars are placed in steam service. After such use and prior to their return to electric service, the cars are to be handed over to the Workshops Manager, Jolimont, who will require to arrange for all the Pintsch gas being emptied from the cylinders, and upon his certifying that this has been done (but not before), the Superintendent Melbourne Yards will require to arrange to restore the cars to the proper electric trains.

4. (a) In some small lamps, a tap for lowering or extinguishing the light is provided inside the globe, with the end pointing downwards at the hinge side of the lamp, and can be regulated with an ordinary gas key.

(b) In all new lamps a tap is being placed at the outside of the lamp near the hinge, and can be regulated with an ordinary gas key.

**5. Locking or Unlocking Gas Globes.**—(a) To unlock a lamp globe, the pin must be turned over the lamp catch to the left; to lock the globe the pin must be turned to the right with the gas key.

(b) When closing a lamp globe, the catch must be eased by one hand whilst the globe is pushed into position by the other hand; the employe should bear in mind that he may meet with serious injury, if, owing to undue pressure, the globe should break.

**6. Lighting of Lamps.**—(a) After the gas has been turned on at the main tap, and also, if necessary, at the bye-pass tap on the lamp, the globe must be opened by lifting the catch on the side of the lamp and allowed to remain open for a few seconds to permit any gas which may have gathered therein to escape. The gas must then be lighted with a naked light and the globe closed.

When lighting lamps, special care must be exercised to prevent the car ceiling being disfigured by smoke from the naked light used.

*NOTE.*—In some South Australian cars the catch must be pulled downwards to open the globe.

(b) If any difficulty in lighting the gas be caused by the presence of air in the pipes, the tap of the lamp furthest from the main tap must be opened to allow the air to escape, and the lamps then lighted, commencing with the one nearest to the main tap.

(c) If any mantle burn with a red light (due to the gas lighting back at the point at which it enters the cross pipe leading to the mantle), the gas must be momentarily turned off and then turned on again and re-lighted. In the event, however, of the lamp not being provided with a tap, the globe must be opened and the light blown gently underneath, and at the side of the reflector near the hinge. This will usually make the lamp burn properly, but if it still burn with a red light, the reflector must be dropped and the light extinguished for a few seconds; the reflector must then be replaced and gas relighted.

(d) In any instance in which it is considered that the traffic in an early morning train is insufficient to necessitate the lighting of every compartment, the following instructions must be observed:—

(i.) In any car requiring to be lighted, all the lamps must be lighted, otherwise the gas will escape at the unlighted



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lamps, but in the event of the lamps being provided with a bye-pass tap, the light in every compartment not required for occupation must be turned down low.

- (ii.) The doors on both sides of each compartment in which the lamp is not lighted, or is turned down low, must be locked until it is broad daylight.

(e) Employes must not stand on the seats of cars when lighting the lamps; stools must always be used when lamps are being lighted by employes that are not tall enough to reach the lamps. Station-masters not supplied with the necessary stools should inform the Transportation Branch Staff Officer, Spencer-street.

(f) LAMPS OF SIDE OR TAIL SIGNALS.—After the gas has been turned on at the main tap, the lamp must be opened and the tap inside turned on, and the gas then lighted.

(g) Should any Side or Tail Lamp be slow in lighting (due to the presence of air in the pipes), the tap furthest from the main tap must be opened for one minute to allow the air to escape; see sub-clause (b).

(h) On trains where Side Lamps are provided at both the front and rear end of the trailing Van, the rear Side Lamps must be lighted when such is necessary, and not the front ones.

(i) LAMPS IN VANS.—The flame must be regulated by the tap in each Van lamp, and should be about 1 inch in height.

**7. Extinguishing Lights.**—(a) A rod is provided on the end (outside) of every car (except Corridor cars) by means of which all the lights are turned down low. To turn lights completely out, the main tap at end of each car must be turned off by means of gas key. Neglect to comply with this instruction will lead to considerable loss of gas.

**8. Economy in the Use of Gas.**—(a) Every Station-master, Conductor, Guard, Lampman, or other employe connected with the lighting of trains must see that gas is not used unnecessarily; that the lamps are not lit earlier than is actually necessary, and **that the gas is promptly turned off or lowered (as the case may be) at the bye-pass when the lights are not required.** On country trains the Conductor, or if a Conductor be not with the train, the Guard must see that the gas in any unoccupied compartment in which the lamp is provided with a bye-pass tap, is turned down until the lights are required for the use of passengers.

(b) In AC cars and other combined Van and car stock, the gas may be completely turned off at each lamp by using the bye-pass tap on the outside of the lamp, but the bye-pass taps are now being removed from these classes of vehicles, and the lights will then require to be lowered by means of the bye-pass lever at the end of each car, until it is necessary to turn them on full.

(c) Each Guard must see that all the lamps on his train are extinguished as soon as it is clear daylight, and the lights are no longer required.

(d) At Stations where the trains are taken out of running, the gas must be extinguished and turned off without delay, and, whenever practicable, before the trains leave the platform.

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**9. Leakage of Gas in Car Fittings.**—(a) In any instance in which it is observed that the gas is escaping from any of the fittings in a car, any passengers who may be occupying such car must be transferred to another car, and the ventilators must be opened, the door must then be locked, to prevent other passengers from entering the car, which must be returned to Melbourne by the first available train. In the event, however, of the escape continuing until the supply of gas in the cylinder is exhausted, the car may be re-opened and utilised for traffic during daylight only. The Chief Mechanical Engineer must be advised by telegram of any such escape, and of the number of the car affected; see clause 10.

(b) In case it should be necessary in consequence of a vehicle firing, or serious leakage occurring, to shut off the gas at the cylinders, the hexagonal cap-nut on the connecting pipe leading from cylinder ends must be removed, the gas key inserted, turned to the right, and screwed right home. To remove the hexagonal cap-nut, a shifting spanner is necessary, and should be obtained from the Driver.

(c) In the event of an outbreak of Fire, the Gas must be immediately shut "Off."

(d) **No employe must, under any circumstances, search for an escape of gas with a light, nor permit any other person to place a light in close proximity to any car in which it is suspected that gas is escaping; a leakage can be usually located by feeling the joints of the pipes or by the sense of smell.**

In all cases where a leakage occurs that cannot be locally rectified, arrangements must be made for a qualified man to attend to it, and in the case of a car it should be taken to the nearest locomotive depot, locked and empty, for attention. See sub-clause (b), clause 10.

(e) **The utmost care must be taken to prevent any naked light being brought near to a travelling gas car in the event of its being derailed or in collision, thus avoiding the risk of explosion in the event of leakage of gas.**

**10. Defects in Lighting.**—(a) In any instance in which the lighting throughout a car is found to be defective (the main tap as well as the bye-pass taps being full on) and repairs cannot be effected locally, the car must, subject to sub-clause (b) hereof, be returned to Melbourne in daylight, and the Chief Mechanical Engineer advised by telegram of the number of the car and the train by which it is being forwarded.

(b) Suitable tools and materials are provided at the undermentioned Stations in order that minor repairs may be effected to gas fittings of cars:—

Ballarat, Benalla, Bendigo, Colac, Geelong, Hamilton, Korong Vale, Korumburra, Maryborough, Murtoa, Ouyen, Tallarook, Toolamba, Traralgon, Upper Ferntree Gully and Wangaratta.

Whenever there is evidence that a defect or leak exists, Station-masters must arrange for the matter being brought under the notice of

## LIGHTING OF TRAINS.

the proper Rolling-Stock Officer, and when necessary place the vehicle where gas can be obtained to enable the gas fittings to be properly tested and repaired.

(c) Before any car is dealt with as defective, however, an examination must be made of **both** pressure gauges (as one of them may be out of order) to ascertain whether there is any gas in the cylinders. If exhaustion of supply be the only defect, the car must be sent to the nearest gassing depot for the cylinder to be refilled.

**11. Cleaning of Lamps.**—(a) The Officer-in-Charge of every Terminal or Depot Station must see that the globe of every lamp and the lenses of every Side and Tail Lamp are cleaned daily.

(b) A lamp globe when being handled must always be held by the metal ring which holds it in position, otherwise it is liable to be soiled with finger marks, and must be closed gently in order to avoid breakage of the globe or mantle.

(c) The nozzle which fits into the mantle, and which is exposed by lowering the reflector, must be frequently cleaned by Lampmen, and the carbon deposit must either be wiped or scraped off, otherwise it will greatly diminish the light and eventually destroy the mantle.

(d) The Chief Mechanical Engineer and Train Lighting Inspector, Spencer-street, must be advised by wire of any defective lamp, and care must be taken to furnish the number of the car or Van affected.

**12. Incandescent Mantles.**—(a) A mantle, when being handled, must always be held by the earthenware ring, and the protecting cage of the mantle must not be interfered with in any way, as a touch will destroy a mantle after it has been once fixed in position and fired.

(b) When fixing a new mantle the globe of the lamp must be opened and allowed to hang down; the reflector must then be unhooked and allowed to hang inside the globe and the mantle holder lifted off the reflector; the wire ring must next be taken out of the holder, and the old earthenware ring and mantle replaced by new articles, care being taken to see that the wire ring is sufficiently open to hold the mantle firmly; the holder must then be pressed on to the reflector, and the latter hooked in its place. After the mantle has been properly adjusted, the stiffening material must be burnt off with a match, and the mantle will then be ready for use. A sheet of paper or a duster must always be placed under the globe to catch the grit which frequently accumulates on the top of the reflector of the lamp and falls out when the reflector is lowered.

(c) In the event of a mantle being destroyed while the lights are in use, and another mantle not being immediately obtainable, the gas must be turned down at the bye-pass. If the lamp is equipped with both a knob and a tap, the tap must be turned off in order to shut off the gas from the lamp. If there be no means of turning off the gas at any one lamp separately, the gas must be lighted and allowed to burn without a mantle, instead of being allowed to escape into the globe.

A mantle must not be thrown away because it has a small hole or crack in it, but must be kept in use as long as it gives a good light.

## LIGHTING OF TRAINS.

**13. General.**—(a) Every employe, whatever his grade or position, must draw attention to anything that may come under his notice and which appears likely to cause loss or damage to the Department in connection with the lighting of trains.

(b) All telegrams referring to Pintsch gas requirements and the movements of "Q" Gas Cars must be addressed to the Chief Engineer of Signals and Telegraphs, the code address "Signal" being used.

### INSTRUCTIONS GOVERNING THE USE OF ELECTRIC LIGHT ON STEAM LOCOMOTIVE HAULED TRAINS.

**1.** This system of lighting trains is under the control of the Chief Mechanical Engineer, and supervised by the Train Lighting Inspector; the Electrical Staff engaged in this system of lighting throughout the State will be under the supervision of the Train Lighting Inspector, whose Office is at the Train Lighting Depot, Dudley-street.

**2. Brief Description of Equipment.**—**DYNAMO.**—The Dynamo is hung on the underframe of the car or Van, and is driven from the axle of such vehicle by means of a belt. The Dynamo supplies current direct to the lamps, and also surplus current for charging the Accumulators.

**ACCUMULATORS.**—These are contained in boxes hung on the under frame, and are utilised for supplying current for lights whilst the train is running slowly, and when it is stationary.

**LIGHTING SWITCHES.**—The Main Lighting Switches for controlling the lamps are normally situated in the corridor of the car, and in the canopy portion of the Van.

**3. Instructions to Train Examiners.**—When making an examination of a train on which there are vehicles equipped with electric light the Train Examiner must comply with the following:—

(a) Examine axle pulleys and see that the bolts are tight, the flanges intact, the dynamo belts in position and not ragged on the edges.

(b) Examine all suspension gear, including nuts, pins, etc., to see that they are in proper position and safe. See that accumulator boxes are not damaged or showing signs of dampness through leakage of acid or other cause.

(c) Examine the dome cover on the outer end of the dynamo and see that there are no marks on it indicating its contact with any obstruction. Care must be taken to see that the covers of the instruments, which are situated close to the dynamo, are securely closed.

(d) If any wires leading to the Dynamo have become disconnected the free ends must be tied up securely, and the Dynamo belt removed and placed in the Van and waybilled to the Train Lighting Inspector. The defect must be verbally reported to the Station-master and, by memo, to the Rolling Stock Officer-in-charge.

(e) If a belt be missing a new one must be fitted, if available; if not available the Station-master must be advised, and the latter must promptly wire the Train Lighting Inspector all particulars, including the train and number and class of vehicle concerned.

## LIGHTING OF TRAINS.

The Station-master must also be informed in the event of any other defect which cannot be remedied by the Train Examiner. Under no circumstances must adhesive mixtures be applied to Dynamo belts; the application of such would result in serious damage to the Dynamo.

(f) **Note.**—It must be distinctly understood that only skilled members of the staff of the Train Lighting Inspector are permitted to open up or in any way examine the enclosed gear of the lighting equipment.

**4. Periodical Examinations.**—(a) All periodical examinations of the electric lighting equipment will be carried out by the electrical staff of the Train Lighting Inspector; this staff will also be available to effect running repairs to the equipment on cars and Vans running on Country Lines.

(b) **Dates of Periodical Examination to be Stencilled on Dynamos and Accumulator Boxes.**—On a suitable position on each Dynamo and Accumulator Box there will be stencilled the date of the last periodical examination of each; the date of the last outdoor inspection must be indicated in chalk.

**5. Instructions to Carriage Cleaners.**—The Leading Hand in charge of Carriage Cleaners will be held responsible for the switching on of the Electric Light when required for cleaning purposes, and also for its prompt extinction when cleaning is completed. When cleaning is done by the Transportation Branch Staff the local Officer in charge will be held responsible, as in the case of the Leading Hand in charge of Carriage Cleaners. Only Half Lights are to be used when the lights are necessary for cleaning purposes.

**6. Instructions to Transportation Staff.**—(a) Attention is specially directed to the need for economy in the use of electric light.

The energy contained in the accumulators is limited, and serious damage to the cells is likely to occur as the result of unnecessary burning of the light.

(b) When switching the lights on the switch must be placed in the first position "Half Lights" and left thus until necessary to use full lights.

(c) In all cases the switch must be operated so that the blade shall make a good contact. An imperfect contact leads to burning and damage of the switch.

No danger of an electric shock to the operator need be feared when switching the light On or Off.

(d) Station-masters, Guards and Conductors must see that the lights are not switched On earlier than is necessary and that the lights are promptly switched Off when there is sufficient daylight, at the completion of a journey, and when a vehicle equipped with the lighting apparatus is detached en route.

(e) Conductors must immediately reduce to "Half Lights" when the light becomes dull or shows indications of failing or when it has been reported that a dynamo belt is missing; on trains where there is no Conductor this must be done by the Guard.

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(f) When a Station-master has been informed by a Train Examiner of any defect in the lighting equipment, such as a Dynamo belt missing, he must immediately inform the Guard of the train and also the Conductor where employed.

(g) It is very important that prompt action be taken in reporting defects in the lighting equipment. Conductors must promptly report defects to a Station-master; where no Conductor is employed, this must be done by the Guard. Station-masters must promptly wire particulars of defects reported to them to the Train Lighting Inspector, and the train, and number and class of vehicle must be quoted in the wire.

(h) Conductors or Guards must see that the hinged covers of switch boxes are kept locked in order to prevent damage to the hinges.

**7. Cleaning of Lamps.**—(a) The Officer-in-charge of every Terminal or Depot Station must see that the globe of every lamp and the lenses of every Side and Tail Lamp are cleaned daily.

(b) A lamp globe when being handled must always be held by the metal ring which holds it in position, otherwise it is liable to be dirtied with finger marks, and must be closed gently in order to avoid breakage of the globe.

(c) The Chief Mechanical Engineer and Train Lighting Inspector, Spencer street, must be advised by wire of any defective lamp, and care must be taken to furnish the number of the car or van affected.

**8. Warning Against Interference with any Part of the Lighting Apparatus by Passengers.**—The staff generally is instructed to see that passengers do not open globes, remove lamps, or interfere with Switches or any part of the lighting equipment.

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## WORKING OF LIGHTING SWITCHES ON CARS OF ELECTRIC TRAINS.

When switching the light "On" or "Off" the cars of Electric trains the switch-rod at the end of the coach must be operated by one quick complete movement, so as to ensure its going smartly and fully home against the stop. The switch-rod must not be left in an intermediate position, otherwise damage to the switch will result. Station-masters, Guards, and others concerned must see that this instruction is observed.

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## Cranes, Steam Shovels, and other Lifting Appliances, Etc.

### INSTRUCTIONS RESPECTING THE MAINTENANCE, EXAMINATION AND TESTING OF CRANES, STEAM SHOVELS, AND OTHER LIFTING APPLIANCES, CRANE CHAINS, WIRE ROPES, CHAIN SLINGS, WIRE ROPE AND MANILLA ROPE SLINGS.

1. All Cranes, etc., must be maintained, examined and tested in the manner, and at the periods, stated in the respective Books of Instructions issued by the Chief Mechanical Engineer, Chief Engineer of Way and Works, Chief Electrical Engineer, or Chief Engineer of Signals and Telegraphs.

2. The following is a list of the various types of Cranes, etc., and the Branches responsible for their upkeep:

(a) **Electric Cranes.**—

- (i.) **POWER HOUSE AND SUBSTATIONS.**—The maintenance, examination and testing of Electric Cranes at these places must be carried out by the Electrical Engineering Branch; the testing and annealing of the chains and chain slings must, however, be done by the Way and Works Branch when this is required by the Chief Electrical Engineer,
- (ii.) **NEWPORT, JOLIMONT, BALLARAT, BENDIGO AND SIGNALS AND TELEGRAPHS WORKSHOPS.**—The maintenance, examination and testing of Cranes at these places must be carried out by the respective Workshops Managers; the testing and annealing of the chains and chain slings must, however, be done by the Way and Works Branch when this is required by the Chief Mechanical Engineer.
- (iii.) **STATION YARDS, GOODS SHEDS, ETC.**—The maintenance and examination of these Cranes will be carried out by the Way and Works Branch as regards the mechanical portion, and in respect of the electrical portion by the Electrical Engineering Branch within the electrified area, and by the Signal and Telegraph Branch outside that area. All testing of the capacity of these Cranes will be carried out by the Way and Works Branch.

(b) **Hydraulic Cranes.**—The maintenance, examination and testing of Hydraulic Cranes will be carried out by the Rolling Stock Branch.

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(c) **Wreckage and Steam Loco. Cranes.**—The maintenance, examination and testing of Wreckage and Steam Loco. Cranes (Three-ton Steam Portable Cranes belonging to Way and Works Branch excepted) will be carried out by the Rolling Stock Branch; the Three-ton Steam Portable Cranes referred to will be maintained, examined and tested by the Way and Works Branch, but the periodical examination of the boilers, etc., and any necessary examination of the running gear and wheels, etc., of these Cranes must be carried out by the Rolling Stock Branch.

(d) **Portable Cranes (Hand).**—The maintenance, examination and testing of these Cranes will be carried out by the Rolling Stock Branch.

(e) **Travelling Cranes and all Workshop and Depot Cranes.**—The maintenance, examination and testing of these Cranes will be carried out by the respective Branches using them.

(f) **Station Yard Cranes (Hand).**—The maintenance, examination and testing of these Cranes will be carried out by the Way and Works Branch.

(g) **Two-ton Hand Cranes Mounted on Trucks.**—These Cranes are directly under the control of the General Superintendent of Transportation, and (unless special permission be given), must not be used for other than Departmental work.

**3. Steam Shovels.**—The maintenance, examination and testing of Steam Shovels will be carried out by the Rolling Stock Branch.

**4. Lifting Capacity of Cranes.**—Each Crane must bear a legible record of the maximum weight it is permitted to lift, and on no account is the Crane to be used to raise a heavier weight; should this record become defaced, the Works Foreman must at once arrange for its renewal, and, pending such renewal, the persons using the Crane must be informed of the maximum weight for which the Crane may be used.

**5. Cleaning and Lubricating of Lifting Cranes.**—(a) Persons in charge of Lifting Cranes must keep them properly cleaned and lubricated.

(b) The Works Foreman must direct the attention of the Station-master or other person in charge to any Station Crane requiring lubrication; the Works Foreman must, however, arrange for the lubrication of any part of the Crane that is inaccessible to the Station Staff.

**6. Defects In Cranes, Slings, etc., to be Immediately Reported.**—(a) Station-masters, Officers in charge and employes operating Cranes must exercise constant supervision over the Cranes, chains, wire ropes, and chain and wire rope slings under their control, and, should they have any reason to believe that any of these appliances or articles are in any way defective, must promptly report the circumstances as under:—

(i) **WITHIN THE ELECTRIFIED AREA.**—To the Inspector of Iron-work (Way and Works Branch) in respect to cranes in Melbourne Yard, at Montague and Graham, and to the Works Foreman of the Section in respect of all other cranes in the case of a mechanical defect, or to the Electrical Superintendent (Electrical Engineering Branch) in the case of electrical defect.



## WORKING OF CRANES.

(ii.) **OUTSIDE THE ELECTRIFIED AREA.**—To the Works Foreman (Way and Works Branch) in the case of a mechanical defect, and to the Lines and Lighting Engineer (Signal and Telegraph Branch), in the case of electrical defect.

(b) When any Crane (or other lifting appliance), chain or sling is found to be defective, it must not be again used until the defect has been remedied.

**7. Operation of Cranes, and Use of Slings, etc.**—(a) The weight of all heavy articles must be ascertained before attempting to lift them, and the crane must not be used to lift any weight that exceeds its rated capacity.

(b) Suitable slings must always be used and their capacities given in the tables under clauses 10 to 15 inclusive must not be exceeded. Ropes provided for use as Lashings must not be used as Slings.

Slings must always be used for lifting wet casks of wine, spirits, beer, oil, etc., and for large cases, such as those containing machinery, pianos, or other bulky packages.

Care must be taken to see that loads are evenly slung in such a manner that there will be no danger of slipping; guy ropes should be used, when necessary, to prevent swaying.

(c) Special slings are provided for certain classes of goods, and where such goods are handled, the special slings should form part of the equipment of the Crane.

(d) Cranes (Wreckage and Loco. Steam excepted) must not be used for hauling trucks or dragging articles which the chain cannot plumb.

(e) The operation of all Cranes must be performed or supervised by a man properly qualified for the duty.

(f) When not in use the Crane must be secured so that no portion can foul the track.

(g) See also clause 5 of instruction for the protection of operations at scene of accident (page 33), and clause 2 of instructions in respect of Stations with Sidings close to the Running Line (page 192).

**8. Lowering Loads.** (a) When the Crane is provided with brake-gear and the load is being lowered by means of the brake, care must be taken to prevent the load from attaining excessive speed (say over 15 feet per minute), and on no account must the load be stopped with a jerk; before lowering by the brake, the handle shaft should be taken out of gear.

When no brake is provided, the operator, when lowering a load, must keep his hold on the handle; the handle must not, under any circumstances, be released to lower the load, as when revolving at a high velocity the handles are liable to break off and injure the operator or others in the vicinity. The use of ropes or battens for braking purposes is prohibited.

(b) In no case must a heavy article be raised and remain suspended beyond the time necessary to adjust the Crane for lowering.

## WORKING OF CRANES.

**9. Accidents.**—Should an accident occur to a Station Yard Crane, the Station-master must at once notify by telegraph the Chief Engineer of Way and Works, the General Superintendent of Transportation, the District Engineer and the Works Foreman. If the track be obstructed and the Works Foreman's staff be not available, the track gang must assist to remove the obstruction.

**10. Crane and Sling Chains.**—The permissible loads for Crane and Sling Chains are as follow:—

Permissible load on lifting chains of cranes (single), subject to the capacity of crane as painted on jib.	Diameter of chain.	Permissible load on sling chains (Single).
11½ cwts.	5/16ths inch	9½ cwts.
17 "	¾ "	14 "
1½ tons	7/16ths "	19 "
1½ "	½ "	1½ tons
2 "	9/16ths "	1½ "
2½ "	5/8 "	2 "
2¾ "	11/16ths "	2½ "
3½ "	¾ "	2¾ "
4 "	13/16ths "	3½ "
4½ "	7/8 "	3¾ "
6 "	1 "	5 "
7½ "	1½ inches	6½ "
9½ "	1¾ "	7¾ "
11½ "	1¾ "	9½ "
13½ "	1¾ "	11½ "

**11. Wire Ropes.**—Where lifting wire ropes are used on Cranes, the permissible loads are as follow:—

Circumference of wire rope.	Diameter of wire rope to the nearest 1-16th inch.	Permissible load on Single lifting wire ropes subject to the capacity of the crane as painted on the jib.
Inches.		
1	5/16ths inch	11½ cwts
1½	¾ "	18 "
1½	¾ "	1½ tons
1¾	9/16ths "	1½ "
2	5/8 "	2½ "
2½	11/16ths "	3 "
2½	13/16ths "	3½ "
2¾	¾ "	4½ "
3	15/16ths "	5½ "
3½	1 "	6 "
3½	1½ inches	7 "
3¾	1 3/16ths "	8 "
4	1½ "	9 "
4½	1¾ "	10 "

All lifting wire ropes should be coated with special rope oil at least once in every six months; the Inspector of Ironwork or the Works Foreman for the Section, as the case may be, to arrange.

**12. Working Loads on Manila Rope Slings.**—The following are the working loads for Manila Rope Slings with new ropes:—

Girth of Rope in inches.	Working Loads.							
	Single Rope.		Two Parts.		Three Parts.		Four Parts.	
	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.
8	1	17	3	10	5	0	6	6
7	1	8	2	14	3	16	4	16
6	1	1	2	0	2	16	3	11
5½	0	17	1	13	2	7	2	19
5	0	14	1	7	1	19	2	9
4½	0	12	1	2	1	12	2	0
4	0	9	0	18	1	5	1	11
3½	0	7	0	13	0	19	1	4
3	0	5	0	10	0	14	0	18

**13. Old Manila Rope Slings.**—(a) The working loads for old rope slings in the varying conditions of wear cannot be scheduled, and Station-masters, Officers in Charge, Foremen, and employes operating the Cranes must therefore exercise proper discretion as to the strength of such slings, bearing in mind that a few months of exposed work may weaken the rope to an extent of, from 20 to 50 per cent.

(b) Ropes should be taken care of, and, when not in use, kept in a dry place; when thoroughly wet a Manila rope will suffer reduction in strength to an extent of about 50 per cent.

(c) The use of Manila ropes for slings should be avoided as far as possible.

**14. Ropes.**—All crane ropes, rope slings, and tail ropes must be carefully examined before being used, and also specially examined on every Monday morning by the Station-master or Officer in charge, or an employe appointed by him; the weekly examination by the person appointed will not relieve the men using the ropes, etc., from the responsibility of satisfying themselves that the articles are in proper order each time they are to be used.

Chains, dog hooks, slings, etc., when not in use, must not be allowed to lie on the ground, but must be placed on spikes provided for the purpose or properly stored under cover.

**15. Lubricating and Cleaning Lift Mechanism and Cleaning Engine Rooms, Wells, and Cars.**—

(a) ELECTRIC LIFTS—

(i.) Electrical Equipment—The Electrical Superintendent (Electrical Engineering Branch) is responsible for the cleaning and maintenance of all electrical equipment and the mechanical equipment in engine rooms.

(ii.) The Water Supply Engineer (Way and Works Branch) is responsible for the maintenance of the car guides, safety grippers and wire ropes, and for oiling the guides as often as

## WORKING OF CRANES.

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necessary, but not less than twice weekly for lifts which are frequently used, and at least once weekly for other lifts; he is also responsible for cleaning the sides and bottom of lift well, and the outside of the car, twice weekly for lifts that are frequently used, and once weekly for others.

In the case of lifts at Jolimont and Newport Workshops, the respective Workshop Manager is responsible, and in the case of the lift at the Motor Garage, Batman-avenue, the Maintenance Superintendent is responsible.

(b) **HYDRAULIC LIFTS.**—Flinders-street Station—At Flinders-street the Water Supply Engineer (Way and Works Branch) is responsible for the maintenance of the mechanical equipment; he must arrange for the cleaning, lubricating and oiling of the machinery and guides, and cleaning of the sides of the well and outside of the car not less than twice weekly.

The bottom of the well must be cleaned by the Liftman during the time that the workman is cleaning and oiling the machinery and guides.

(c) **INTERIOR OF LIFT CARS.**—

(i.) The interior of every car must be cleaned daily, and more frequently if necessary, by the Liftman.

(ii.) Toorak Station—The interior of the Lift at Toorak must be hosed daily and kept clean by the Liftman, but before hosing the car the Liftman must—

(a) Open the main Electric Switch in Switch Room.

(b) Place covers (provided by the Chief Electrical Engineer) in place over Limit Switch and over Door Contact.

(d) The Station-master, in the case of lifts at Stations, and an official deputed by the Workshops Manager, Jolimont or Newport, and by the Maintenance Superintendent at the Motor Garage, Batman-avenue, must make a daily inspection of the cars and the lift wells.

The Caretaker at the Head Offices, Spencer-street, is responsible for allocating and seeing that the foregoing duties are regularly carried out; he must make a daily inspection.

The Caretaker, Flinders-street, is similarly responsible in respect of passenger lifts at the Station Buildings, Flinders-street, and must make a daily inspection.

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## Conveyance of Explosives and other Dangerous Goods, Etc.

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Supplementary to the Rules contained in Appendix (i.), Book of Rules and Regulations.

**Definition.**—The term “Portable Magazine” as used in these instructions means an approved galvanised iron cylinder, red in colour, with the name of the firm to whom it belongs shown thereon.

**1. By Goods and Mixed Trains.**—The Commissioners are not common Carriers of Explosives, Aquafortis, Mineral Acids, Petroleum, Phosphorus or Lucifer Matches, or any other goods which, in their judgment, may be of a dangerous character, and they will undertake the conveyance thereof only at the risk of the Consignor.

**2. (a)** No employe of the Commissioners is authorised to receive or undertake the conveyance of Explosives or other goods of a dangerous nature, or to give any receipt or acknowledgment for such goods, unless the consignor thereof has obtained from the proper employe of the Commissioners and signed the special Explosives or Dangerous Goods Consignment Note, or has signed the general agreement authorising the use of a Consignment Note other than that prescribed.

**(b)** Unless otherwise specially authorised, Explosives are to be accepted for conveyance at Laverton only, and only on such days as may be appointed.

**(c)** Unless otherwise specially authorised, no Explosives, except those for which conditions of carriage are provided (see the authorised list in the Goods Transport Book), must, under any circumstances, be accepted for conveyance, nor must those which are authorised be accepted for conveyance to a Caretaker or a No-one-in-charge Station unless they are packed in Portable Magazines.

**3.** It is of the utmost importance that the directions laid down in the Transportation of Goods Book, in these instructions, and in those contained in Appendix 1 to the Book of Rules and Regulations, be strictly adhered to, in order that the articles in question may be properly carried and safely dealt with.

**4.** The Station-master or person in charge of the Station, or such other authorised employe of the Commissioners at the time of receipt and delivery, is personally responsible for the safe dealing with the traffic, and for adopting all necessary precautions for carrying out these and such other Rules and Instructions as may be in force, including the proper supervision and direction of the employes concerned. Should any difficulty arise a communication must be at once sent to the Superintendent of Goods Train Service, to whom also all evasions or neglect must be reported.

**CONVEYANCE OF EXPLOSIVES.**

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**5.** At every Station regularly receiving Inwards consignments of Explosives, one adult member of the Staff must be specially selected to attend to the Explosives business, and he will be held responsible for the due observance of the Rules, Regulations, and other Instructions. The District Superintendent must nominate a competent employe for this duty, and arrange with the Station-master so that such employe will be fully conversant with the Rules, Regulations, and other Instructions relating to the Explosives traffic.

**6.** Consignments of Explosives must be sent to the Forwarding Station, and be received only at such times during the hours of daylight, that is to say, between sunrise and sunset, as the Commissioners may appoint; and every consignment and package containing any Explosive proposed to be carried by rail must, immediately on the arrival thereof, be delivered to, and be received by the employe of the Commissioners authorised to receive Explosives, and by no other person whomsoever.

**7.** Explosives must not be loaded or unloaded on the Railway premises by the Consignor or Consignee thereof, or their servants, except between sunrise and sunset, and even then the loading or unloading must not be proceeded with during a thunderstorm, nor when any train or person, other than an employe, is in the vicinity.

**8.** (a) Loaded Powder Vans must not be forwarded by Passenger or Mixed trains.

(b) Not more than ten loaded Powder Vans shall be attached to or be conveyed by any Goods train at any one time; this is subject to the aggregate quantity of Explosives not exceeding twenty tons, and to the further condition that not less than three trucks, either empty or containing ordinary goods, intervene between each single vehicle or set of vehicles containing five tons of Explosives; trucks containing Oil, Hay, Straw, Chaff or other inflammable loading, must not, however, be used as intervening trucks; see also clause 17.

**9.** (a) All Explosives conveyed in Powder Vans for Roadside Stations should be taken delivery of from passing trains; but if the Consignee be not present to receive his consignment, the Station-master or person in charge must arrange for it to be removed from the train and placed in an empty Box truck or Louvre truck (Detonators being kept separate from other Explosives) and covered both under and over with tarpaulins; in the event of a Box truck or a Louvre truck not being available, the Explosives must not be unloaded. The truck must be set in a place of safety, and the employes concerned must be advised. The Station-master or person in charge must also notify the fact to the Superintendent of Goods Train Service by wire, giving the Consignor's name.

(b) At Caretaker and No-one-in-charge Stations, Explosives must not be unloaded from the Portable Magazine until after the train by which they arrive has departed, nor then whilst there is any person other than an employe in the vicinity; the Guard must so inform the Consignee. If the Consignee be not present to receive his consignment,

**CONVEYANCE OF EXPLOSIVES.**

the Explosives must not be removed from the train, but must be taken on (at the Owner's risk and expense) to the next Station, where there is a Station-master, who must endeavour to effect a prompt delivery.

**10.** When from any cause a Van containing Explosives remains on hand at any Station overnight or on Sunday (though every effort must be made to deliver Explosives before Sunday), it must, if reasonably practicable, be placed in a Siding, where it will not be likely to be disturbed, and it must be protected by a Red Danger Signal being exhibited at the Catch Points or Scotch Block at the entrance to such Siding. The Points leading to the Siding must as far as possible be kept locked, so that no other vehicle can be shunted against the Powder Van, and the Scotch Blocks (where provided) must be secured across the rails. In addition, the Van, if it be provided with a Hand Brake, must have the Brake put down and secured, but if it be a Van without a Brake, it should, if an ordinary truck is available, be attached to such truck, which must have its Hand Brake put down and secured. If an ordinary truck is not available, one of the wheels of the Powder Van must be secured to the rail by means of a chain and padlock.

**11.** (a) Loose shunting of vehicles containing Explosives is strictly prohibited. Neither must any vehicle be loose shunted towards vehicles containing Explosives.

(b) The Special Truck Card (G.F. 61b), conspicuously marked "INFLAMMABLE": one of these cards must be attached to each side of any truck containing motor spirit, petrol, benzine or similar commodities, in large or small quantities.

In order to minimise the possibility of leakage of these highly combustible commodities, it is essential that vehicles that are carded "INFLAMMABLE" must be shunted with care to ensure avoidance of damage to the drums, tins, or other containers.

The Truck Cards referred to above must be removed from trucks at destination Stations and forwarded to the Storehouse Manager, Spotswood, at the end of every month.

**12.** Unless special instructions are issued to the contrary, engines of trains conveying loaded Powder Vans must burn coal only.

**13.** Special care must be taken not to bring any light into close proximity to vehicles containing Explosives or Inflammable goods.

**14.** (a) Powder Vans must be kept clean, and nothing must be conveyed in them except the packages of Explosives, and the Magazine Slippers. The Vans must never be used for any other traffic.

(b) Powder Vans must, in every case, be locked on both sides when loaded.

In the event of the lock of a Powder Van becoming defective, a temporary lock must be used, and immediate application for a new lock should be made to the Transportation Stores Officer, Melbourne, to whom the defective article must be promptly forwarded.

**15.** Unless otherwise specified, Explosives must not be conveyed in Brake-vans.

## CONVEYANCE OF EXPLOSIVES.

**16.** Certain specified Explosives, when in their original packages and loaded into Portable Magazines, or in their original packages without the use of Portable Magazines, if it be so stated in the Special Conditions (see Goods Transport Book), may be conveyed together with ordinary goods, in any truck by Mixed or Goods train, provided such truck does not contain any article or substance of a dangerous or inflammable nature. A Mixed train must not, however, be used for the conveyance of Explosives that could be forwarded without undue delay by a Goods train.

**17.** On Mixed and Goods trains not less than **three** trucks must intervene between the engine and the nearest truck conveying explosives, and between the Passenger vehicles and the nearest truck conveying explosives, and between any **two** trucks either of which is carrying over 300 lbs of Explosives or over 10,000 Detonators. When less quantities than these are carried, one or more trucks must intervene; trucks containing Oil, Hay, Straw, Chaff, or other inflammable loading, must not be used as intervening trucks; see also clause 8.

**18.** Not more than 50 lbs. of Explosives nor more than one kind of Explosive shall be carried in any one Portable Magazine. The greatest care must be taken in handling Portable Magazines. They must always be carefully carried, and in no case must hand trucks be used.

**19.** Not more than 1000 lbs. of Explosives (other than Detonators) and not a greater number than 30,000 Detonators, shall be carried in goods trucks by any one train, and not more than ten vehicles containing Explosives shall be conveyed by any one train.

**20.** Consignees must not be permitted to take Portable Magazines away from Stations, unless for the purpose of transhipment to river passenger boats. When empty, the Magazines must be returned to Laverton without delay, waybilled "Free."

Before being returned, all Portable Magazines must be opened and examined by the Station-master or person in charge in order to make sure that they are quite empty.

Portable Magazines must not be used for conveying or for stowing any article other than Explosives.

**21. Conveyance of Inflammable Liquids.**—Employes are warned that consignments of benzine are liable to be set on fire by contact with the flame of hand-lamps, and, as such an occurrence involves great danger, the attention of all concerned is specially directed to the following instructions:—

- (a) Before receiving consignments of benzine, benzoline, petrol, motor spirit, naphtha, or other inflammable liquid, each package must be closely inspected, and if any trace of leakage is detected such package must not be accepted for despatch, but must be immediately removed by the Consignor. All such consignments must be in hermetically sealed tins or bottles, and packed in sawdust.
- (b) Inflammable liquids must not be unloaded or stored in Goods Sheds, but must be placed outside the Sheds and



away from other goods; notice must be given to the consignees on the day of arrival that such goods are at the Owner's Risk.

- (c) When a truck covered with a tarpaulin is loaded with benzine or petrol, or contains mixed consignments amongst which are cases or drums containing these inflammable liquids, care must be taken when it becomes necessary to unload any such Goods, to have the tarpaulin thrown well back before entering the truck with a Hand Lamp; see clause 13.
- (d) When it is necessary to discharge inflammable liquids during the hours of darkness special care must be exercised in the use of hand-lamps or other lights when entering vehicles containing this class of loading, as vapour from naphtha or petroleum liquids when mixed with the atmosphere in a confined space is extremely dangerous and liable to explode. Vapour from naphtha or petroleum liquids being heavier than air sinks and lies close to the ground, and is liable to be easily ignited, even though the fire or flame be some distance away; it is, therefore, necessary that hand-lamps or other lights be kept as far as possible (in an elevated position) from inflammable liquids or from vehicles containing goods of this description.
- (e) As far as practicable, the loading and unloading of inflammable liquids must be performed during daylight; see also sub-clause (b), clause 11.

**22. Conveyance of Lime.**— Officers-in-Charge, Guards, Yard Staff, and others should, as far as practicable, marshal trains so that trucks containing lime shall be kept as far as possible from trucks containing explosives, or inflammable liquids referred to in clause 21; see also clause 20, page 92, respecting trucks containing lime.

**23. Conveyance of Oxygen.**—Owing to serious risk of explosion in the event of oil of any kind coming in contact with oxygen, it is essential that every care must be exercised to see that oxygen cylinders (either full or empty) are not placed in any truck, etc., containing oil. Before stowing any oxygen cylinders in any section of a vehicle or shed it must first be ascertained if the floor is clean and free from all traces of oil. Trucks containing liquid fuel oil must be kept as far as possible away from trucks containing cylinders of oxygen.

**24. Conveyance of Cyanide or Other Poisonous Goods.**— Packages containing Cyanide or other poisonous goods, must not be accepted for transit if found to be leaking or otherwise in a loose or bad condition.

In the event of leakage occurring on the journey, the defective packages must be immediately removed (together with any articles that may have been damaged by the leakage) from the train or platform to a place where they will not injure other goods, and the circumstances must be promptly reported to the Claims Agent.

As far as possible, consignments of poisonous goods must not be loaded in trucks containing goods for consumption, nor placed upon platforms where they will come in contact with such goods.

## CONVEYANCE OF EXPLOSIVES.

**25. By Passenger Trains.**—(a) Limited quantities of the under-mentioned Explosives or Dangerous goods may be conveyed by Passenger train:—

(b) **AMMONIA.**—In cases of emergency, when ammonia is urgently wanted at Chilling Works, Butter Factories, etc., one cylinder may be accepted and conveyed by Passenger train, subject to special authority being first obtained from the General Superintendent of Transportation, but the consignor must first supply the Station-master with a written statement, signed by the firm or person who filled the cylinder, setting out the following information:—

*“The Ammonia account.....is contained in a cylinder which was manufactured, tested and filled in accordance with the recommendations of the Home Office Committee of 1895.”*

*“The cylinder also bears the following identification marks .....*

*Signature.....*

(c) **Cinematograph Films.**—Cinematograph Films must not be accepted for carriage by rail unless enclosed in metal containers, or in zinc or iron lined wooden boxes, or in the specially prepared fibre coverings as used by certain firms.

(d) **Nitrous Oxide Gas,** when contained in approved cylinders, packed in strong wooden cases (maximum by any one train, five cylinders).

(e) **Oxygen Gas,** when contained in approved cylinders (maximum by any one train, five cylinders) See clause 23.

(f) **Rubber Cement,** known as “Fire Doctor,” the component parts of which are acid and rubber solution, under the following conditions:—

(i.) The acid must be contained in a strong stoneware bottle, which must be securely stoppered, and the Rubber solution in an air-tight collapsible tube, both the bottle and the tube to be safely packed in sawdust in a small, strong wooden case.

(ii.) The case must be legibly addressed and marked on each side, “Dangerous and Inflammable Goods.”

(iii.) Only one case, which must not contain more than one bottle and one tube, must be forwarded by any one train.

(iv.) The case must not be loaded with nor placed near any other article or substance of a dangerous or inflammable nature.

(g) **Safety cartridges** for sporting purposes may be received at Spencer-street and Flinders-street Parcels Offices for Country Stations, provided they are securely packed in a substantial wooden case, and marked “Safety Cartridges—Explosives.”

**26. Except as specified in the preceding clause 25, Explosives or Dangerous Goods of any kind whatever must not be conveyed by Passenger train.**

The attention of Station-masters and other officials responsible for Waybillings, etc., of Explosives, is directed to the Instructions contained in the Transportation of Goods Book.

**CONVEYANCE OF EXPLOSIVES.**

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**ACCIDENT TO TRAIN BY WHICH EXPLOSIVES OR DANGEROUS GOODS ARE CONVEYED.**

1. In the event of any accident to a train by which Explosives or Dangerous Goods are conveyed, it is most important that precautions be taken to prevent an outbreak of Fire.

2. Before beginning to clear away any wreckage in which a vehicle containing Explosives is involved, all unbroken packages should, if practicable, be removed to a place of safety, and as much of the contents as possible of any broken package or packages gathered up by hand and likewise removed. This work must be carried out by as few men as possible, under careful supervision, and all persons not engaged in the work must be kept at a safe distance.

3. It should be borne in mind that some Explosives are readily fired by a blow, and all explosives by the spark produced when two pieces of metal or a piece of metal and a stone come violently together; therefore, if there be reason to believe, when clearing away wreckage, that there is any Explosive amongst it, care must be taken to avoid the possibility of producing sparks.

4. The particular attention of all concerned is called to this matter, as it is specially necessary that the **UTMOST CARE** be taken when dealing with Explosives or Dangerous goods under these conditions.

5. Every such case must be reported by wire to the Superintendent of Goods Train Service, and unless delay is considered dangerous, nothing should be done until his reply with definite instructions is received.

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## Conveyance of Motor Vehicles, Etc.

### Instructions in regard to the Carriage of—(1) Non-Departmental Motor Vehicles; (2) Departmental Motor Vehicles; and (3) Petrol or Naphtha for use in Departmental Motor Vehicles.

Note.—Vapour from petrol or naphtha is heavier than air and sinks and lies close to the ground or floor. It is highly dangerous, and liable to be easily ignited, even though the fire or flame be some distance away.

**1. Non-Departmental Motor Vehicles.**—(a) The carriage of petrol, naphtha, petroleum gas or other highly inflammable liquid or vapour in the tank of any motor car, motor tricycle, motor bicycle or any other motor vehicle is highly dangerous, and any Station-master or other responsible employe who accepts such a vehicle for transport (other than a motor vehicle belonging to the Department) must make certain that all petrol and other inflammable liquid has been withdrawn from the tank and carburetter before allowing the vehicle to be loaded, or, if he cannot himself inspect the tank of such vehicle, he must appoint one of his staff to do so, and see that the latter thoroughly understands and carries out the duty.

(b) The consignors should be required to remove the inspection plug of the petrol tank, and open the carburetter for examination if any cause for doubt exists. Tapping the tanks and judging the contents by sound **is not a sufficient test**, as even a small quantity of petrol is dangerous. The tanks of some motor bicycles are divided into two compartments, containing a main and a reserve supply of petrol, and care must be taken that both are emptied before acceptance of such vehicles for conveyance by rail.

(c) Liquid withdrawn from any vehicle, in accordance with this instruction, must not be stored nor deposited on the departmental premises.

**2. Departmental Motor Vehicles.**—(a) Departmental motor vehicles with petrol or naphtha in the tanks may be carried in the Van of any Passenger, Mixed or Goods trains, subject to the conditions prescribed hereunder:—

(b) The Motor Vehicle must be accompanied by and in the care of an employe holding a Departmental Motor Certificate of competency.

(c) The Van of a Passenger or Mixed train must not be used for the carriage of any such motor vehicle if a Goods train be available, nor if there be room available in a suitable truck on a Mixed train which has at least one vehicle between such truck and the Passenger cars.

(d) Before permitting the motor vehicle to be loaded, the Station-master or other Transportation Branch employe must first ascertain from the responsible employe accompanying it that the latter has inspected the motor vehicle, and that he certifies—

(i.) That the petrol or naphtha is at least one inch below the top of the petrol tank.

## CONVEYANCE OF MOTOR VEHICLES, Etc.

- (ii.) That the petrol or naphtha stop-cock and the drain-cock beneath the tank of the vehicle are both securely closed; and that no petrol or naphtha is escaping, and
- (iii.) That the Carburetter does not contain any petrol or naphtha.

(e) The responsible employe accompanying the motor vehicle will be responsible for the loading, transport and discharging of such vehicle. He must, at frequent intervals en route, examine the tank, and, if any petrol or naphtha be escaping, the motor vehicle must be removed from the train at or before reaching the next stopping Station, as the necessities of the case may determine; all reasonable assistance must be given to this employe by the Station Staff and the Guard.

Every Van used for the carriage of a motor vehicle must be provided with a chemical Fire Extinguisher, which must be in good order and fully charged for immediate use.

(f) All windows in the Van in which the motor vehicle is being carried must be kept open to the fullest extent consistent with the protection of luggage, parcels, etc., from damage by rain or loss by falling from the Van.

(g) After the discharge of the motor vehicle, the Van must be immediately inspected by the employe in charge of the motor vehicle, who, in the event of any petrol or naphtha having escaped by leakage, etc., must direct the attention of the Guard to the matter. The Guard must then exercise every precaution for the prevention of accident by fire or explosion, and, on arrival at the Terminal Station, immediately report the condition of the Van to the Station-master, who must promptly arrange to have it cleaned.

**3. Petrol or Naphtha required for use in Departmental Motor Vehicles.**—(a) Petrol or naphtha required for use in Departmental Motor vehicles (other than as specified in the foregoing instructions) must not be carried by a Passenger train; if, however, a Goods train is not available a limited quantity as specified hereunder may, subject to the following conditions, be forwarded in the Van of a Mixed train:—

- (i.) The petrol or naphtha must be contained in a two-gallon brass tank, fitted with a tight screw cap and washer. The tank must be securely packed in an approved metal case, fitted with wooden frames with a close fitting wire gauze lid, and conspicuously labelled on each side, "Petroleum Spirit, Highly Inflammable."
- (ii.) Not more than one such tank shall be forwarded in the Van of a Mixed train at any one time.
- (iii.) The conditions laid down in sub-clauses (f) and (g) of the preceding clause 2 must be observed.

**4. The preceding clause (3) shall not apply to consignments of petrol, naphtha or other highly inflammable liquid or vapour by public consignees, the carriage of which is undertaken subject only to the Special Instructions issued in respect to such consignments.**

## Train Staff and Ticket System.

### INSTRUCTIONS SUPPLEMENTARY TO THE TRAIN STAFF AND TICKET RULES (APPENDIX II.) IN THE BOOK OF RULES AND REGULATIONS.

**1.** (a) Except where the Single Line Block System is in force (see clause (b) hereof), and as prescribed in clause 3 of these instructions, the departure and arrival of any train travelling on a Staff Ticket must, unless otherwise ordered, be telegraphed, or, where there is no telegraph, telephoned in accordance with the following instructions:—

(b) Single Line Block Working (vide Appendix vi., Book of Rules and Regulations), is in force between Racecourse Junction and Burrumbet Park, Everton and Beechworth, and Belgrave and Gembrook. Except in the case of a failure of the Block Instruments on these Sections, it will not be necessary to use the Code messages referred to in clauses 2 and 7 of these Instructions.

(c) See clause 3 of these Instructions for list of Lines where only the arrival, and not both the departure and arrival of a train travelling on a Staff Ticket, is telegraphed; see also clause 15 for list of Lines on which Staff Tickets are not ordinarily in use.

**2.** (a) On the departure of a train which travels on a Staff Ticket from a Staff Station, the Signaller or person in charge must (except where Special Instructions are issued to the contrary) send a Telegraph or Telephone message to the Staff Station in advance, using the code word "Apix," and on the arrival of the train complete inside the Home Signal at the Staff Station in advance, the Signaller or person in charge there must send a Telegraph or Telephone message to the Station in the rear, using the code word "Acre."

- (i.) When the last train for the day travels from a Staff Station on a Staff Ticket and overtime would be involved by the Signaller or other Person in Charge remaining on duty to receive the "ACRE" message from the Staff Station in advance, the Signaller or Person in Charge may (if no other duties require his attendance) go off duty after the train has passed at least a quarter of a mile beyond the Station, and is continuing its journey; in all such cases, however, the Signaller or Person in Charge must inform the Guard of the train that he is going off duty when the train departs, and where to find the Station-master or Signaller in the event of an emergency arising which will require his attendance.
- (ii.) At all Staff Stations worked under the Train Staff and Ticket System, the Signaller or Person in Charge coming on duty must examine the Train Register Book to ascertain whether the "ACRE" message has been received for the previous train if such train travelled on the Staff Ticket, and, if not, he must comply with sub-clause (b) hereof.

## TRAIN STAFF AND TICKET.

(iii.) See end of this clause for text of messages represented by the code words; see also clause 6 in regard to Train Passing Without Tail Disc or Light.

(b) Unless special instructions are issued to the contrary, or except in the case of failure of the Telegraph or Telephone Instruments, a second train must not be allowed to leave in the same direction (nor is the Train Staff or Ticket to be given to the Driver) until advice of the arrival of the previous train, as per Code Message, has been received.

Exception to sub-clause (b).—Where specially authorised in any Time Table, a Rail Motor train may, during clear daylight, be allowed to follow any train after an interval of not less than 10 minutes has elapsed and subject to the further conditions specified hereunder in sections (i.), (ii.) and (iii.) :—

(i.) The Driver and Guard of the train preceding the Rail Motor train must be verbally instructed by the Signalman that their train will be followed by the Rail Motor train after the prescribed interval.

(ii.) The Driver of the Rail Motor train must be furnished with and sign for the "Notice of Train Ahead," *vide* pages 250-251, Book of Rules and Regulations.

(iii.) The Apex must be sent for each train as prescribed in clause (a) hereof, but it will not be necessary for the Acre Message to be sent for the train preceding the Rail Motor train.

(c) In the event of the Telegraph or Telephone Instruments failing, no train must be allowed to follow another train on the same Line at an interval of less than five minutes, nor then unless the full running time of the Section has elapsed, and the Driver of such train has been furnished on the prescribed form with a "Notice of Train Ahead." (See Rule 23, Appendix ii., Book of Rules and Regulations.)

(d) When, after a failure of the Instruments, communication has been restored, the Signalman who is in possession of the Train Staff must, in the event of having despatched a train or trains on Staff Ticket, ascertain whether the last train despatched has arrived at the Station in advance (these messages to be sent to the Block and Signal Inspector). If a train on a Staff Ticket be travelling in the Section when communication is restored, no "Acre" message which may have been delayed owing to the failure must be sent until such train has arrived.

(e) If the Railway Department's Instruments be out of order, the Rules, Regulations, and Instructions laid down for train working during any such emergency must be strictly observed. Safe working messages are not to be sent by means of the Postal Department's Telegraph or Telephone Lines, but if the Railway Department's Instruments be out of order, ordinary messages to gain information or attention may be sent over the Postal Department's Line.

(f) The time of arrival and departure of all trains, and the time the Code Messages were sent and received in respect to any train that travelled on a Staff Ticket must be recorded in the proper column of the Train Register Book.

**TRAIN STAFF AND TICKET.**

(g) Where Telegraph Instruments are in use, a clear and legible copy of the Code Message must be recorded on the tape of the Telegraph Instrument, and it is the duty of the Receiving Operator to see to this. If for any reason he is unable to obtain a record of the message on the tape he may, if qualified, take the message by "sound," but, in any such case, he must request the Sending Operator to obtain a record on the tape of his Instrument. The signal "L.T.R." (let tape run) may be used for this purpose. See page 142 for instructions to be observed in regard to the exchange of Telephone Messages.

*Code Words and Forms of Messages referred to in clause 2.*

Code Word.	Text of Message represented by Code.
Apix ... ..	.....train left here at.....
Acre ... ..	.....train has arrived complete.

**Code Form to be Used.**

To.....

(3 p.m.)—"Apix" (3.10 p.m.)

Signature.....

**Code Form to be Used.**

To.....

(3 p.m.)—"Acre."

Signature.....

**3.** (a) Unless instructions are issued to the contrary, when a train travels on a Staff Ticket on any of the Lines or Sections specified below, the Station-master, Travelling Station-master, the Guard, or the Driver of a Rail Motor train unaccompanied by a Guard, must on the arrival of such train complete at the Block Post, or the Staff Station in advance, advise the Staff Station or Block Post in the rear, in accordance with the Code Message "Acre," that the train has arrived (see clauses 2 and 4 of these Instructions), and until such advice is received a following train must not be allowed to depart.

Except in the case of a terminus, the Acre Message must not be sent until the train is quite ready to proceed.



## TRAIN STAFF AND TICKET.

(b) Lines referred to in sub-clause (a) hereof—(i.) :—

Redesdale Junction—Redesdale  
 Kerang—Murrabit  
 Annuello—Robinvale  
 Sealake—Kulwin  
 Piangil—Yungera  
 Waubra Junction—Waubra  
 Birregurra—Forrest  
 Colac—Alvie  
 Heywood—Mount Gambier  
 Bungaree—Racecourse  
 Hopetoun—Patchewollock  
 Rupanyp—Marnoo  
 Natimuk—Carpolac  
 Rainbow—Yaapeet  
 Netherby—Yanac  
 Rushworth—Colbinabbin

Rushworth—Girgarre  
 Merbein—Yelta  
 Redcliffs—Meringur  
 Benalla—Tatong  
 Wangaratta—Whitfield  
 Maffra—Briagolong  
 Moe—Thorpdale  
 Erica—Walhalla  
 Yarram—Woodside  
 Koo-Wee-Rup—Strezlecki  
 Jumbunna—Outtrim  
 Bittern—Red Hill  
 Spotswood—Power House Line  
 Riversdale—East Kew—Ashburton  
 Marnoo—Bolangum

(ii.) When it is necessary for a train to be despatched on a Staff Ticket from any of the Staff Stations mentioned hereunder, and it is required to despatch a following train before the preceding train has arrived at the next Staff Station, arrangements may be made for any of the intermediate Stations shown in the list hereunder, for the respective Staff Sections, to be worked as an Intermediate Block Post in accordance with sub-clause (a) hereof:—

Staff Sections.	Intermediate Stations that may be Worked as Special Block Posts.
<p>Maryborough—Avoca            Ouyen—Walpeup            Underbool—Cowangie            Cowangie—Murrayville            Elmore—Lockington            Lockington—Gunbower            Gunbower—Cohuna            Moe—Erica</p>	<p>Bung Bong            Galah            Boinka            Danyo            Hunter            Roslynmead            Leitchville            Gould: see page 815</p>

(iii) Where the Guard, T.S.M., or Driver acts as Signalman at an Intermediate Station, the "Acre" message must not be sent until the train is quite ready to proceed, and, if for any reason the train be delayed after the "Acre" message has been sent, it must be protected in accordance with the Regulations.

The Guard of the second train must, on arrival at an intermediate Block Post, communicate with the Signalman at the Staff Station in advance, and must not allow his train to depart until he has ascertained that the previous train has arrived there complete.

## TRAIN STAFF AND TICKET.

(b) In the event of a failure of the Telegraph or Telephone Instruments, the instructions laid down in paragraph (c) of clause 2 must be carried out. Where necessary, Guards must carry with them a "Notice of Train Ahead" Book.

4. (a) On any Line where an Intermediate Block Post is opened between Staff Stations, a following train must not be allowed to leave a Staff Station or intermediate Block Post until the previous train has been reported as having arrived at the Block Post or Staff Station in advance.

(b) At an Intermediate Block Post where Fixed Signals are **not provided**, a train must not (except as provided in clause 3) be reported as having arrived until it is a quarter of a mile beyond the Block Post and proceeding on its forward journey, and whenever the Section in advance is occupied or when for any other reason it is necessary to stop an approaching train, the Signalman must place three Detonators ten yards apart on one rail of the Line, and exhibit a Red Hand Signal to the Driver; the Detonators must be placed a sufficient distance (at least 100 yards) outside the Signalman's Hand Signal. When the previous train in the same direction is reported as having arrived at the Station or Block Post next in advance, and, in accordance with the prescribed Rules or Instructions, permission has been obtained for a train to proceed, a Green Hand Signal must, unless the Regulations require otherwise, be exhibited to the Driver and Guard, and the Detonators removed.

(c) The Driver must keep a good look-out when approaching, and must stop at the Intermediate Block Post, unless the Green Hand Signal is exhibited by the Signalman as an intimation that the train may proceed; when the train has stopped at the Intermediate Block Post the Driver must not accept the Guard's Signal to start, unless verbally instructed to do so by the Signalman, and when instructing the Driver to proceed the Signalman must exhibit a Green Hand Signal.

*Clause (c) will not, however, relieve the Signalman of responsibility for placing the Detonators and exhibiting his Red Hand Signal, as prescribed in paragraph (b).*

(d) In every case where an intermediate Block Post is opened, the Signalman at the Staff Station in the rear must so inform the Driver and Guard of each train that is about to proceed into the Section in advance and instruct them where the Intermediate Block Post is situated. This will apply alike to the Signalman at an Intermediate Block Post (when there is another Intermediate Block Post in advance) as well as to the Signalman at the Staff Station; if the train be one that is not due to call, it must be stopped for this purpose.

(i.) Where the Intermediate Block Post is to be worked as prescribed in the preceding clause 3, the Station-master at the Staff Station in the rear will be responsible for instructing Guards and Drivers of trains concerned, in writing, of the arrangements in force of the Intermediate Block Post, and Drivers and Guards must sign for the instructions on a copy to be held by the Station-master, and forwarded with the Train Register Book each week to the Block and Signal Inspector.

## TRAIN STAFF AND TICKET.

(e) Should the Telegraph, Telephone or Block Instruments fail, a train must not be allowed to follow any other train on the same Line at an interval of less than 5 minutes, nor then, unless the full running time of the Section has elapsed, and the Driver has been furnished, on the prescribed form, with a "Notice of Train Ahead."

5. (a) When a train is approaching a Staff Station or an Intermediate Block Post, and the Section ahead is occupied, the Fixed Signals, for the Line on which the approaching train has to run, must, except otherwise provided, be kept at the Stop position until the train is close to the Home Signal, well under control, when, provided the Line on which the train will arrive is clear, the Home Signal may if necessary be placed to the Proceed position to allow the train to enter the Station.

(b) When a train, which has to travel on a Staff Ticket, is approaching a Staff Station, the Fixed Signals must be worked, and the train dealt with as prescribed in the preceding paragraph; before proceeding, the Driver will be responsible for seeing that the Signalman is in possession of the Train Staff for the Section on which his train is about to travel.

(c) At a Temporary Staff Station, where Fixed Signals are not provided, the Signalman must, when an approaching train is to travel on a Staff Ticket, or when the Section ahead is occupied by the preceding train, place two Detonators, ten yards apart, on one rail of the Line at a sufficient distance, at least 100 yards, to the rear of the point at which the Driver will receive the Ticket.

(d) When a train is to travel on a Staff Ticket the Signalman who delivers the Ticket to the Driver must secure the Train Staff under lock and key immediately after the Driver has examined it, and, except in the case of failure of instruments, or unless in accordance with the Rules, it is required in a case of emergency, the Staff must be kept secured until the "Acre" code message intimating the arrival of the train at the Staff Station in advance has been received; in the event of the Staff being required for a shunting operation, it may be released for such purpose, but the Signalman must replace the Staff in its place of security immediately after the Driver has examined it. (See sub-clause (a), clause 7.) An entry to the effect that the Staff was locked away must be made in the Train Register Book, and should the Signalman or person in charge be relieved before the train arrives at the other end of the Section, he must give full information on this point to the person by whom he is relieved.

(e) Before leaving a Staff Station, the Guard, or, when there are two Guards, the Head Guard, must ascertain from the Station-master or person in charge whether his train will travel on the Train Staff or on a Train Staff Ticket.

Unless specially authorised by the General Superintendent of Transportation, no train carrying a Staff Ticket must work at any intermediate Station or Siding where the Points are not controlled by the Train Staff or by a Key attached to the Train Staff. See clause 8.

**6. Train Passed without Tail Disc or Light.**— (a) All trains and Light Engines will carry a White Disc in the rear by day, and a Red Tail Light by night or during foggy weather, to indicate to the Signalman

## TRAIN STAFF AND TICKET.

that no vehicle has become detached on the journey, and Signalmen must carefully watch each train as it passes and satisfy themselves that it is complete.

(b) If a train should pass with the Tail Signal missing or out, the Signalman must not send the "Acre" message (if it travelled on a Staff Ticket) to the Staff Station in the rear, but must, in every case, whether the train travelled on the Staff or on a Staff Ticket, inform the Signalman at the Staff Station or Block Post in the rear and the Signalman at the Staff Station or Block Post in advance. The Signalman at the Signal-box in advance must stop the approaching train, and ascertain from the Guard whether his train is complete. If the train be complete the Signalman must inform the Signalman at the Staff Station or Block Post from which the advice that the Train had passed without Tail Disc or Light was received, and the latter may then (if the train travelled on a Staff Ticket) send the "Acre" message to the Staff Station or Block Post in the rear. In the meantime, no train must be allowed to travel on the Single Line in either direction between the Signal-box which sent the message in regard to the train passing without Tail Disc or Light, and the Signal-box in the rear.

(c) Should the Signalman become aware as the train passes into the Section in advance, or on receipt of information from the Signal-box in advance, that a portion of the train has been left behind, steps must be taken to clear the obstruction.

The Relief train or engine sent into the Station to clear the obstruction must be dealt with as laid down in Rule 16, Appendix ii.

(d) When trains or engines stop at Staff Stations, or before leaving Terminal Stations, Station-masters, Signalmen and Guards should see that the Tail Signals are in proper order, so as to avoid, as far as possible, the necessity for having to take steps in accordance with the above.

**7. Rule 5, Appendix ii.**—(a) When the Staff is at a Station, the Driver is authorised to proceed outside the Home Signal, or beyond the outer Facing Points where there is no Home Signal, for shunting purposes, upon being so instructed by the Signalman, and after sighting the Staff for the Section.

Before sending Message "B" (see Rule 24, Appendix ii., Book of Rules and Regulations), requesting the District Superintendent to suspend the Train Staff and Ticket System, and authorise the issue of a Line Clear Report, the Train Staff must be secured under Lock and Key. No shunting must be allowed outside the Home Signal, or (where there is no Home Signal) beyond the outer Facing Points, until the Train Staff is again released, and the Staff must not be released without the authority of the District Superintendent; if the issue of a Line Clear Report be authorised the Staff must not be released (except as required by Rules 32, 33 and 34) until the train which is to travel on the Line Clear Report has arrived.

When the Train Staff is not at the Station and it is necessary to foul the Line outside the Home Signal or beyond the outer Facing Points at a Staff Station where there are no Fixed Signals, the Driver may proceed out on the Section as far as may be necessary for shunting purposes without being in possession of the Train Staff, after the Signalman has given

## TRAIN STAFF AND TICKET.

him instructions to do so. The Signalman or person in charge must, however, first obtain permission from the Staff Station at the opposite end of the Section, using the code word "Agne."\*

(b) The Signalman or person in charge at the opposite end must not give permission for the Line to be obstructed if there be any train on the Section travelling towards the Station which has applied for permission to shunt outside the Home Signal. After permission to occupy the Line outside the Home Signal has been given, as per code word "Audi,"\* no train or engine must be allowed to proceed towards the Station which obtained such permission until intimation that the obstruction has been cleared is received, as per code word "Awak."\*

*\*See explanation of code words at end of this clause.*

(c) When it is necessary, in the absence of the Train Staff, to foul the Single Line beyond the outer Facing Points for Station work at a Staff Station where there are no Fixed Signals, the Station-master or person in charge, in addition to obtaining permission from the Staff Station at the other end of the Section, as required by sub-clause (b) hereof, must arrange for a competent employe to place upon the Line three Detonators, 10 yards apart, at a distance of 600 yards from the outer Facing Points, and to exhibit a Hand Danger Signal to stop any coming train. The Detonators must not be removed until the shunting operations have been completed, and the Single Line is again clear.

(d) If a train be travelling in the Section away from the Station at which shunting operations have to be performed, and it be necessary to foul the Single Line outside the Home Signal, or beyond the outer Facing Points where there is no Home Signal, this may be done when the train travelling in the Section has proceeded a sufficient distance and is outside the Distant Signal (where a Distant Signal is provided), but in addition to sending the code word "Agne," the Signalman at the opposite end of the Section must be first advised that a train (specifying the train) with the Staff is in the Section travelling towards his Station, and after he has given permission, as per code word "Audi," he must not allow any train to proceed towards the Station which obtained such permission until intimation, as per code word "Awak," has been received that the Line is again clear.

If the train in the Section ahead be a Ballast train or Goods train working in the Section, and it be intended to return back to the Station without going to the Station in advance, shunting outside the Home Signal, or beyond the outer Facing Points, where there is no Home Signal, must not be permitted until a man with Hand Signals and Detonators has been sent out to protect such shunting.

(e) When, in accordance with these instructions permission has been given to obstruct the Line outside the Home Signal or beyond the outer Facing points where there are no Fixed Signals, the Signalman who sends the "Audi" message must at once lock away the Train Staff for the obstructed Section, and in the circumstances specified in sub-clause (d) he must lock away the Train Staff immediately on arrival of the train; in each case the Train Staff must be kept secured until receipt of the code message "Awak" intimating that the obstruction has been cleared.

## TRAIN STAFF AND TICKET.

An entry to the effect that the Staff is locked away must also be made in the Train Register Book, and should the Signaller or person in charge be relieved before receipt of the code message "Awak" intimating that the obstruction has been cleared, he must give full information on this point to the person by whom he is relieved.

(f) Unless special permission is given, no train or vehicle must be placed outside the Home Signal, or beyond the outer Facing Points where there is no Home Signal where the Line is on a falling gradient towards the Station in the rear, and then only when there is a Brake on the outer vehicle, and a man with it, to prevent a runaway by using the Brakes.

(h) During foggy weather, or when from any other cause a good and distant view cannot be obtained, no shunting outside the Home Signal or beyond the outer Facing Points, where there is no Home Signal, is allowed unless the Train Staff for the Section is at the Station; permission to obstruct the Single Line outside the Home Signal, or beyond the outer Facing Points, must not be applied for.

(i) When permission to obstruct the Single Line outside the Home Signal, or beyond the outer Facing Points where there is no Home Signal, is applied for and obtained, the circumstances must be recorded in the Train Register Books.

*Code words referred to in Clause 7.*

Code Word.			Text of Message represented by Code.
Agne	...	...	Permission is required to obstruct the Single Line outside the Home Signal, or (in the case of a Staff Station where a Home Signal is not provided) beyond the outer Facing Points.
Audi	...	...	Permission for obstruction outside Home Signal (or beyond the outer Facing Points) granted as requested.
Awak	...	...	Obstruction outside Home Signal (or beyond the outer Facing Points) now cleared.

**8. Use of Master Key.—Rule 21, Appendix ii.**—(a) The following instructions must be observed when it is necessary for a train carrying a Staff Ticket to work at any intermediate Station or Siding where the Points are controlled by the Train Staff or by a Key attached to the Train Staff. A Master Key, lettered for the Section in which it is authorised to be used, will be supplied for the purpose. An Annett Key attached to a Train Staff must not be detached without the authority of the Superintendent of Goods Train Service.

(b) When handing to the Driver the Staff Ticket for the Section, which must have endorsed across it the words, "Master Key," the Signaller or person in charge must, at the same time, hand to the Driver the Master Key.

**TRAIN STAFF AND TICKET.**

(c) When the train arrives at the intermediate Station or Siding, the Points of which are controlled by the Master Key, the Driver must hand the Key to the Guard or Fireman, to enable him to unlock the Points.

(d) When the necessary shunting has been completed, and the Points have been placed in their proper position for trains to pass upon the Running Line, the Guard or Fireman must return the Master Key to the Driver, and the latter must not proceed on his journey until he has obtained possession of it. (The Points must be tested after the completion of the shunting operations; see Special Instructions respecting the working of Special Locks, pages 146-149).

(e) If the train which requires to work at an intermediate Station or Siding be travelling on a Line Clear Report, the instructions laid down herein must, as far as practicable, be observed, the words "Master Key" being endorsed across the Line Clear Report. A train travelling on a Line Clear Report must not work at an intermediate Station or Siding unless it is important that loading be taken on or put off.

(f) As soon as possible after the Master Key has been handed to the Driver, a telegram must be despatched to the Staff Station at the opposite end of the Section, and to the Signalman at each Intermediate Block Post, stating that the Driver is in possession of the Master Key, and specifying the Siding or Sidings (if more than one), at which the train will work. If the Master Key is to be used on two or more Sections, all the Staff Stations concerned must be advised by wire.

Should the train not work at the Station or Siding the Guard must advise the Signalman or person in charge when the train arrives at the Staff Station in advance, and he, in turn, must advise the Signalman or person in charge at the Staff Station in the rear.

(g) When the train the Driver of which is carrying the Master Key arrives at the Staff Station at the opposite end of the Section, he must hand the Key to the Signalman or person in charge, who must telegraph to the Staff Station in the rear that the train has arrived, and that the Key is in his possession; but should it be necessary for any one train to use the Key in two or more Sections, the Driver must, on arrival at each Staff Station, or Intermediate Block Post, show the Key to the Signalman or person in charge, who must notify the Stations concerned in accordance with sub-clause (f), and then advise the Staff Station, or Intermediate Block Post, next in the rear that the train has arrived, and that he has seen the Key in the possession of the Driver, and so on with each succeeding Staff Station, until the Key is no longer required by that train for shunting purposes.

The Signalman or other employe who receives a Master Key from a Driver should not allow it to pass out of his hands until the Key can be put away in its proper place; if left temporarily on the footboard of a vehicle, or any part of a train or engine, the Key is liable to be lost, and great inconvenience may be caused.

Guards, Shunters or other qualified employes, on receiving a Master Key for the purpose of performing shunting or any such purpose, will be responsible for the safe custody of the Key, which must be returned to the Driver immediately after the work which required the use of the Key has been completed.

## TRAIN STAFF AND TICKET.

(h) When either of the telegrams referred to in sub-clause (g) above, has been received by the Station in the rear, another train may be allowed to follow without comment as far as the Master Key is concerned; but, in the event of any failure of the Telegraph or Telephone Instruments, the Driver of a following train must, in addition to being furnished with a "Notice of Train Ahead," be cautioned in writing not to pass over the Points (Facing or Trailing) at any Station or Siding where the Points are controlled by Master Key, until he has satisfied himself that they are in the proper position. The Guard, as well as the Driver, must be fully informed of the circumstances that render these precautions necessary.

(i) Should the Driver be unable to produce the Key when his train arrives at the Staff Station in advance, immediate inquiries are to be made, and every possible precaution taken for safety before another train is allowed to follow, or, before a train travelling on a Line Clear Report is allowed to proceed in the contrary direction; in either case the Driver of such train must be cautioned in writing not to pass over any Points (Facing or Trailing) at any Station or Siding where the Points are controlled by Master Key, until he has satisfied himself that the Points are set in the proper position. The Guard, as well as the Driver, must be fully informed of the circumstances that render these precautions necessary, and must be instructed to make a careful search for the missing Key at each Station.

The written caution must, in like manner, be issued to the Driver of every train passing over any Section, until the missing Key is recovered or until special instructions are issued.

(j) All movements of the Master Key must be recorded in the Train Register Book at each Staff Station or intermediate Block Post. Should the Signaller or person in charge be relieved before the train, the Driver of which carries the Master Key, arrives at the other end of the Section, he must give full information on this point to the person by whom he is relieved.

Arrangements must be made so that the Master Key will be at the proper Station when required.

(k) When the Master Key is not in use, it must be securely locked away. In the event of it being necessary to transfer a Master Key from one Staff Station to another (except when it is required, in accordance with sub-clause (a) or (e), for shunting purposes), it must be way-billed and booked as a value parcel, and signed for by the Guard, and by the Signaller or person in charge to whom it is delivered.

The Signaller in possession of the Master Key on Saturday night of each week must, prior to the Train Register Book being forwarded to the Block and Signal Inspector's Office (see clause 9, page 685), enter across figure line—"Master Key for Section. . . . (*Name of Section to be shown here*) . . . . . is in my possession."

When more than one Master Key is provided for a section, the location of each such key must be specified.

(l) Unless special instructions are issued to the contrary, the use of a Master Key, as prescribed in the foregoing, is authorised at the intermediate Stations or Sidings, in the following Sections. (For list of places where trains are not allowed to shunt between sunset and sunrise, see page 217.)



## TRAIN STAFF AND TICKET.

### LIST OF SECTIONS WHERE MASTER KEYS ARE IN USE.

#### NORTHERN DISTRICT.

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>*† Rochester—Strathallan</li> <li>*† Clarkefield—Romsey</li> <li>* Redesdale Junction—Redesdale</li> <li>* Maldon Junction—Maldon</li> <li>* Elmore—Cohuna</li> <li>* Wycheproof—Culgoa</li> <li>* Culgoa—Sea Lake</li> <li>* Sea Lake—Kulwin</li> </ul> | <ul style="list-style-type: none"> <li>* Ultima—Chillingollah</li> <li>* Chillingollah—Manangatang</li> <li>* Manangatang—Annuello</li> <li>* Annuello—Robin vale</li> <li>*† Kerang—Lake Boga</li> <li>* Kerang—Murrabit</li> <li>* Swan Hill—Piangil</li> </ul> |
|---|---|

#### MIDLAND DISTRICT.

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>* North Creswick—Newlyn</li> <li>* Daylesford—Newlyn</li> <li>* Waubra Junction—Waubra</li> <li>* Ararat—Ben Nevis</li> <li>* Avoca—Ben Nevis</li> <li>* Maryborough—Avoca</li> </ul> | <ul style="list-style-type: none"> <li>* Ben Nevis—Navarre</li> <li>* Redcliffs—Werrimull</li> <li>* Ouyen—Underbool</li> <li>* Underbool—Murrayville</li> <li>* Murrayville—Pinnaroo</li> <li>* Dunolly—Inglewood</li> </ul> |
|--|---|

#### WESTERN AND SOUTH-WESTERN DISTRICTS.

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|--|--|
| <ul style="list-style-type: none"> <li>*† Irrewarra—Birregurra</li> <li>*† Panmure—Allansford</li> <li>* Drysdale—Queenscliff</li> <li>* Irrewarra—Cressy</li> <li>* Cressy—Newtown</li> <li>* Barongarook—Gellibrand</li> <li>* Gellibrand—Beech Forest</li> <li>* Beech Forest—Crowes</li> <li>* Linton Junction—Newtown</li> <li>* Condah—Heywood</li> <li>* Heywood—Portland North</li> <li>* Koroit—Penshurst</li> <li>* Penshurst—Coleraine Junction</li> <li>* Branxholme—Merino</li> </ul> | <ul style="list-style-type: none"> <li>* Merino—Sandford</li> <li>* Heywood—Mount Gambier</li> <li>*† Dunkeld—Hamilton</li> <li>* Birregulla—Forrest</li> <li>* Lubeck—Bolangum</li> <li>* Warracknabeal—Hopetoun</li> <li>* Horsham—East Natimuk</li> <li>* Natimuk—Goroke</li> <li>* East Natimuk—Balmoral</li> <li>* Balmoral—Hamilton</li> <li>* Dimboola—Jeparit</li> <li>* Jeparit—Rainbow</li> <li>* Jeparit—Yanac</li> </ul> |
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#### NORTH-EASTERN DISTRICT.

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>* Murchison East—Colbinabbin</li> <li style="padding-left: 2em;">—Girgaree</li> <li>*† Tallarook—Yea</li> <li>* Shepparton — Canning Co.'s</li> <li style="padding-left: 2em;">Siding (a)</li> <li>* Shepparton—Dookie</li> <li>† Dookie—Katamatite</li> </ul> | <ul style="list-style-type: none"> <li>* Strathmerton—Cobram</li> <li>* Benalla—Yarrowonga</li> <li>* Wangaratta—Whitfield</li> <li>* Bowser—Everton</li> <li>* Everton—Bright</li> <li>*† Ebden—Tallangatta</li> <li>* Tallangatta—Cudgewa (b)</li> </ul> |
|---|--|

\*Staff. †Annett. ‡In use when Composite or divided Staff is in force on these Sections. (a) For Local use. (b) In addition to the Master Key for the Section Tallangatta—Ebden, four keys numbered 1 to 4, are kept at Tallangatta for use in connection with Live Stock traffic Tallangatta to Cudgewa; these keys are lettered Tallangatta—Shelley.

## TRAIN STAFF AND TICKET.

### LIST OF SECTIONS WHERE MASTER KEYS ARE IN USE—*continued.*

#### EASTERN AND SOUTH-EASTERN DISTRICTS.

<ul style="list-style-type: none"> <li>* Bairnsdale—Nowa Nowa</li> <li>* Nowa Nowa—Orbost</li> <li>† Bairnsdale—Bairnsdale Wharf</li> <li>* Morwell—North Mirboo</li> </ul>	<ul style="list-style-type: none"> <li>* Moe—Walhalla</li> <li>* Warragul—Neerim South</li> <li>* Neerim South—Noojee</li> <li>* Toora—Alberton</li> </ul>
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#### METROPOLITAN DISTRICT.

<ul style="list-style-type: none"> <li>* Maribyrnong River Line (a)</li> <li>* Reservoir—Whittlesea</li> <li>* Baxter—Morningson</li> </ul>	<ul style="list-style-type: none"> <li>* Somerville—Hastings</li> <li>* Belgrave—Gembrook</li> </ul>
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\*Staff.      †Annett.      (a) For Local use.

9. (a) Staff Stations and Signal-boxes should only have one Staff Ticket Book (the one in use) on hand for each Section, and it must be kept in the Ticket-box as per Rule 12 of Appendix ii. When it is seen that a new Staff Ticket Book will be required within a fortnight, requisition is to be made for it to the Inspector, and, on receipt, the Station-master or Signaller, as the case may be, must lock the new Book away until it is required. The blocks of the Ticket Books must be sent to the Block Inspector when the Tickets are exhausted.

(b) The Ticket Book in use must be kept in the proper Ticket-box, the key to open the Box being the Staff for the same Section as the Box, so that if the Ticket-box be kept locked, for which the Signaller will be held strictly responsible, access to the Tickets cannot be obtained unless the proper Staff for the Section is then at the Station.

The Ticket-box is so constructed that the Book must be inserted in the recess provided for it, and the Box closed before the Staff can be withdrawn from the lock. No article or Book other than the Staff Ticket Book is to be placed in the Ticket-box.

If, owing to defect, the Signaller be unable to open the Ticket-box when necessary to obtain a Staff Ticket, and there be no Ticket Book in stock, he must furnish the Driver with a Special Order in writing as a substitute for the Staff Ticket. When writing this Special Order for the Driver, the Signaller must strictly adhere to the wording of the Form as printed in Rule 9 of Appendix 11, see page 229, Book of Rules and Regulations. The Signaller must stop the train the Driver of which is to receive the Special Order, and fully explain the circumstances to the Driver and the Guard, and must produce the Train Staff for the Driver's inspection. The Signaller issuing the Special Order must also advise the Signaller in advance, and the latter, on receiving the Special Order from the Driver, must at once forward it with a report to the District Superintendent. When a Special Order is used as above in place of the Staff Ticket, the Rules, Regulations and Instructions applicable to a train travelling on a Staff Ticket will apply to the train carrying the Special Order. Employes responsible for dealing with the Train Staff and Staff Tickets must frequently test the lock of the Ticket Box; if the lock is not working satisfactorily or the Train Staff be in any way defective, the circumstances must be immediately reported by telegram to the Superintendent of Goods Train Service, and to the District Superintendent.

## TRAIN STAFF AND TICKET.

### 10. Rules 24 to 37, Appendix II., Issue of "Line Clear Report."—

(a) If it be necessary to suspend the Train Staff and Ticket System and issue a "Line Clear Report," the Station-master must himself see that it is done strictly in accordance with the Rules; if off duty, but within call, he must come on duty for the purpose. In the unavoidable absence of the Station-master, the person in charge or other qualified employe may act instead, provided he has been certified to as competent in the working of the Train Staff and Ticket System.

(b) The use of any Telegraph Code word or abbreviation in messages "A," "B," "C" or "D" is strictly forbidden.

(c) When a train travels on a Line Clear Report, the Signalman or person in charge must verbally inform the Guard of the circumstance.

11. When sending cancelled Line Clear Reports to the District Superintendent, all messages in connection therewith must be attached, including those exchanged by the Station-masters before authority was obtained to issue a Line Clear Report.

12. Cancelled Train Staff Tickets, "Notice of Train Ahead" Tickets, and Code Telegrams sent and received in connection with the arrival and departure of trains, as well as all Telegrams sent and received in connection with the use of the Master Key and the signalling of trains, must be forwarded to the Block and Signal Inspector for the District, each week, with the Train Register Book.

13. Rule 7, Appendix II.—Where it is not practicable for the Signalman for the time being to personally receive and deliver the Staff or Ticket, the duty may be entrusted to a senior Porter or other properly qualified employe, who must be so authorised by the Metropolitan or District Superintendent, as the case may be; such employe must wear a Staff Badge. The Staff Ticket must, however, be made out by the employe responsible for the Train Staff and Ticket Working.

14. Particulars regarding delays to trains, interruption on Telegraph and Telephone lines, as well as all other irregularities, must be entered in the Remarks column of the Train Register Book. When a train travels on Staff Ticket, the distinguishing number of the Ticket must also be entered.

15. Lines on which Staff Tickets are ordinarily not in Use. — On the Lines shown hereunder Train Staff Tickets are not ordinarily in use, and, unless special instructions are issued to the contrary, every train or engine must carry the Train Staff for the Section:—

**North Geelong and Fyansford.**

**Moriac and Wensleydale.**

**Lal Lal and Lal Lal Racecourse.**

**Linton Junction and Ballarat Cattle Yards.**

**Stawell and Gramplains.**

**Bet Bet and Ballast Pits**

**Newport South and Altona Beach.** See Instructions, page 840

**South Kensington Junction and the City Abattoirs.**

**Coburg and Fawkner.**

**North Fitzroy and Fitzroy.**

**Macleod and Mont Park**

## TRAIN STAFF AND TICKET.

LINES ON WHICH STAFF TICKETS ARE ORDINARILY NOT IN USE—*continued.*

**Hawthorn and Kew.  
Spring Vale and Spring Vale Cemetery.  
State Mine and Dudley Area  
Wonthaggi and Eastern Area.  
Crib Point and Naval Base.**

**16. Opening and Closing of Staff Stations.**—(a) New Staff Stations are not to be opened nor existing Staff Stations closed without the authority of the General Superintendent of Transportation, and then only in accordance with the following instructions:—

(b) Let "A," "B," and "C" represent three Stations—"A" and "C" being Staff Stations, and it has been decided to either open "B" as a Staff Station or to close it as such.

(c) **Opening.**—The Staffs and Boxes for the new Sections will be sent to the Metropolitan or District Superintendent or to either "A" or "C," but in any case, the Superintendent must arrange for them to be placed, and for the Staff and Boxes for the "A"—"C" Section to be withdrawn and secured in safe custody or otherwise disposed of, as may be directed. He must also provide a competent man to take charge at "B," and arrange for any Hand-Signalmen and Hand Signals that may be necessary.

When placing the Staff Boxes at temporary or permanent Staff Stations, each Box must be left at the proper Station, viz.: at the Station the name of which appears first on the Box.

(d) The Block and Signal Inspector must see that the necessary Books (Staff Ticket Books excepted) and Forms are supplied. The Staff Ticket Books will be forwarded enclosed in the Staff Boxes.

(e) In every case where the Permanent Staff Section is divided, the Signalman at the Station in the rear will be responsible for informing the Driver and Guard of each train that is about to proceed into the Section in advance what is the next Staff Station. This will apply alike to the Signalman at a Temporary Staff Station (where there is another Temporary Staff Station in advance), as well as to the Signalman at the Permanent Staff Station; if the train be one that is not due to call, it must be stopped for the purpose. Except where Fixed Signals are not provided at the new Staff Station, it will not be necessary to carry out the provisions of this clause after the expiration of one month from the date on which it was opened as a Staff Station.

(f) **Closing.**—When instructions are issued for "B" to be closed, the Metropolitan or District Superintendent, as the case may be, must arrange for the Temporary Staffs and Boxes to be withdrawn, and for the Ordinary Staffs and Boxes to be replaced; unless otherwise ordered, the Temporary Staffs and Boxes must be waybilled to the Superintendent of Goods Train Service, and the Books (Staff Ticket Books excepted) and Forms returned to the Block and Signal Inspector. The Staff Ticket Books must be returned in the Staff Boxes.

(g) Every care must be taken in handling Staffs and Boxes. They must be duly waybilled, treated as important, and forwarded without delay. The Boxes must be plainly addressed, but neither the addresses nor

## TRAIN STAFF AND TICKET.

the Parcels Tickets are to be **pasted** on the Boxes. The addresses must be written on a card or label and attached to the handle of each Box.

### BOOKS AND FORMS:

The undermentioned Books and Forms are necessary in connection with the working of Single Lines under the Train Staff and Ticket System:—

BOOKS.	Schedule Letter and Number.	FORMS.	Schedule Letter and Number.
Train Register Book ...	T.R. 19	Working of Single Line by Pilotman when the Train Staff is lost	T.R. 17A
Staff Ticket Book. Up ...	T.R. 13	Working of Single Lines by Pilotman during obstruction ...	T.R. 17
Staff Ticket Book. Down ...	T.R. 12	Working of Single Lines by Pilotman—Cancellation Order ...	T.R. 18
Line Clear Report—Sent ...	T.R. 15	Signa'man's Caution Order for Driver to pass a Fixed Signal at the Stop Position (see page 130)	T.R. 18B
Line Clear Report—Received	T.R. 16	Driver's Relief Order ...	R.S. 225
Notice of Train Ahead ...	T.R. 14		

## Rules for Working Single Lines of Railway by Train Section Orders.

(These Instructions will only become effective when and where specially authorised by the General Superintendent of Transportation.)

**DEFINITIONS.**—“Train Section Order” shall mean any of the Section Orders designated as Form “A,” “B,” “C,” or “D” when completed and signed by the responsible Control Officer, as prescribed in these Rules.

“Control Officer” shall mean the Station-master in charge of the Control Station.

“Control Station” shall mean a Station at either end of a Division.

“Division” shall mean the whole of the Single Line between adjoining Control Stations.

“Section” shall mean the length of Line between two Crossing Stations.

“Unattended Crossing Station” shall mean any Station, including a Caretaker Station at which ordinarily no qualified male employe is in attendance until the arrival of a train, when, unless otherwise arranged, the Guard shall be in charge of the Station.

1. On Single Lines, where the system of Working by Train Section Orders is in operation, Train Staffs or Staff Tickets will not be used, but the movements of trains will be controlled by the Station-masters at specified Stations on the Line, and trains may be crossed at Stations where there is no Signalman or Officer-in-Charge.

2. *Object of the System.*—(a) The object of this system is to regulate traffic on the Single Line, and to facilitate the crossing of trains at Intermediate Crossing Stations.

(b) Except as provided for in these Rules, the Driver (or Drivers in the event of more than one engine) and Guard of each train must be furnished with Section Order A, B, C, or D, as the circumstances may require. (See specimen form in Rule 8.) No train must be permitted to leave a Control Station unless the Driver and Guard are in possession of the authorised Section Order, properly filled in and signed by the Station-master, as prescribed in these Rules.

(c) Station-masters must always have a supply of these Forms on hand, and must supply Guards with form “D” according to requirements.

(i) Before proceeding, each Driver and Guard receiving a Section Order must carefully peruse it and satisfy himself that

## TRAIN SECTION ORDER SYSTEM.

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the instructions contained therein are consistent with the Rules; if the Driver or Guard should not clearly understand such instructions, he must at once communicate with the official from whom it was received, and get a clear understanding thereof.

- (ii.) The Guard's Signalling to the Driver to start, and the Driver's starting, will be regarded as indicating that each man clearly understands the instruction contained in the Section Order received.
- (iii.) Except as provided in Rule 9, each Trainman must retain in his possession the Section Order received until the train has arrived at the Control Station at the opposite end of the Division, or in the event of its terminating at an intermediate station (see Rule 10) has returned to the Station at which it was issued when he must deliver it to the Station-master.
- (iv.) In the event of there being a Man-in-charge at any intermediate Station in a division, and any train is required to be side-tracked or to cross another train at such station, the Control Officers at each end of the Division must notify the Man-in-charge at such Station by a telegraph or telephone message, specifying the train or trains concerned, and the Man-in-charge at the intermediate Station will be responsible for complying with the instructions laid down for protection, etc.
- (v.) The Control Officers must maintain a complete knowledge of the layout and accommodation at Stations in the Divisions under their control; in order that such information shall be available for Relieving Officers, a table showing the name and mileage of, and the length and vehicular accommodation (clear of fouling points) of each of the local Roads and Sidings at such Stations, must be exhibited in a suitable position in their offices.

3. (a) In cases where a special train is run at short notice and a printed notice cannot be issued in time, the Crossing Places may be arranged by telegraph or telephone with the officers controlling the Section.

(b) After receiving such notice by telegraph or telephone, the Control Officer at each Control Station should compare the Notices received by them, and ascertain that they agree.

4. (a) The scheduled Crossing Places must not be changed unless a clear and definite understanding exists between the Control Officers directing the movements of the trains, and then only after ascertaining the position of the trains, the crossing places of which it is desired to alter. Immediately a crossing is altered, the Train Control Officer of the District and all concerned must be advised of such alteration.

## TRAIN SECTION ORDER SYSTEM.

(b) After a definite understanding is arrived at, the following message must be sent between the two Stations arranging the altered crossing:—

.....No. of Words.

From.....to.....

The.....train from.....to....., which should ordinarily cross the.....train at....., will instead cross that train at.....

Repeat.

.....Signature

.....Station

This message must always be written in pen and ink on the proper "Outwards" Form before being sent, and written word for word as received on the proper "Inwards" Telegraph Form, also in pen and ink; messages sent and received by telephone must be dealt with as laid down in the Instructions, under the heading of "Telephone Communications," etc. (pages 141-142), and must be recorded on the tape at both Stations where Morse Telegraph Instruments are in use.

5. (a) Control Officers must keep themselves advised by telegraph or telephone of the running of trains so as to make early arrangements in advance for altering the crossing places, if necessary.

(b) Guards of trains should as far as practicable keep the Control Officers advised by the telephones at Intermediate Stations as to how their trains are running. This is particularly important when trains are losing time, or are not running to schedule.

**6. Method of Crossing Trains.**—(a) When trains are crossed at Stations where there is a Station-master and Fixed Signals are provided, the instructions shown on pages 411-415 regarding the Crossing of trains at such Stations, must be observed; where Fixed Signals are not provided, the instructions laid down in sub-clause (b), clause 4, pages 415-416, must be observed.

(b) When trains are arranged to cross at Unattended Stations, the following instructions must be strictly obeyed:—

(i) Where Fixed Signals are provided they must be kept normally at the Stop position, and after the train to arrive first has stopped at the Signal the Guard of such train must go forward and take charge of the Signalling and of any Crossing arrangements which may be required.

If both trains approach at the same time the Guard of the least important train, or in the case of two trains of equal importance the Guard of the train that is scheduled to depart last from the Crossing Station (see clause (c) hereof) must perform this duty.



## TRAIN SECTION ORDER SYSTEM.

- (ii.) When a train is to depart from an Unattended Station having Fixed Signals, and it is known that the next train to pass through will not cross another train there, the Control Officers may arrange for the Guard of the first train to lower the Home Signal in the direction from which the next train is to run, but the Guard of such train must also be instructed in respect of the Signals; it must be distinctly understood that in such circumstances one Signal only must be left at the "Proceed" position, and the other locked at Stop.

Both Home Signals must be left at Stop, and the quadrants locked in that position whenever a crossing is to be arranged.

- (iii.) Where there are no Fixed Signals, Location Boards of a triangular shape, and having the name of the Station painted thereon, are fixed about 440 yards from the first Facing Points at each end of the Station. Drivers, Firemen and Guards must keep a good lookout for these boards, and if their train is to cross another at the Station to which the Location Board applies, the train must be immediately brought under complete control and the speed between the Location Board and the first Facing Points must be reduced to a rate not exceeding 10 miles per hour. The engine must be brought to a stand at the Facing Points, and the Guard of the first train to arrive, or, if both trains approach together, the Guard of the least important train must take charge of the Crossing arrangements.

A train stopped at the Facing Points must not go forward until the Train Crew receive a Hand Signal or verbal intimation from the Guard in charge of the crossing arrangements. The Hand Signal must be Green for the Up train, and White for the Down train; at night the White Hand Signal must be waved up and down.

Guards must be careful to exhibit the Hand Signal from a position and in such a way as to prevent the Signal being taken by the wrong train; they must also be on the alert to stop a train that moves forward irregularly.

**Special Note.**—In the event of a Guard sighting a Location Board approaching a Station where crossing has been arranged and the speed of the train is not checked in accordance with sub-clause (iii.) hereof, the Guard must immediately apply the Air Brake from the Van, bring the train to a stand, and leave the air cock in the open position until he has communicated with the Driver.

(c) When both trains arrive at or about the same time, the following procedure must be adopted:—

- (i.) In the case of two Passenger trains crossing each other the train first to arrive must be brought to the Platform Road, and after passenger work is completed, be set back and placed in the Crossing Loop; the Guard of this train must take

## TRAIN SECTION ORDER SYSTEM.

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charge of the Crossing arrangements, and will be responsible for Locking Bars being taken off where necessary, and again secured and locked in position before the train leaves.

- (ii.) In the case of a Mixed or Goods train crossing a Passenger train the Mixed or Goods train should be first brought into the Crossing Loop, after it has been seen that such Road is clear, and when the train has been brought to a stand, and it is seen the Platform Road is clear, the Passenger train may be brought to the platform, and if no other train is to be crossed at the Station it may depart after completing platform work.

The Mixed or Goods train may then be set back and brought to the Platform Road if necessary.

- (iii.) In the case of a Goods train crossing a Mixed train, the Goods train must be dealt with as shown above for the Mixed.
- (iv.) Should there be time, however, before the more important train is due to arrive, the Mixed or Goods train may be brought into the Platform Road, and after completion of platform work be set back and placed clear in the Crossing Loop.
- (v.) If there be no platform work to be done a Mixed or Goods train, after being placed in the Crossing Loop, may depart direct from there after the more important train has arrived and the Road is clear.
- (vi.) When a Mixed or Goods train crosses a Passenger train the Guard of the Mixed or Goods train will be responsible for the Crossing arrangements and for seeing that all Locking Bars and Scotch Blocks are taken off where necessary. He will also be responsible for placing Signals to Stop, securing and locking all Locking Bars and Scotch Blocks in position before his train departs, and for informing the Station-masters, where practicable, of the times trains are departing from the Crossing Station.
- (vii.) When a Light Engine crosses a train, the Guard of the train will be responsible for the crossing arrangements in accordance with sub-clause (c) hereof.
- (viii.) In the event of the more important train arriving first, it may be brought to the platform road before the arrival of the opposing train after sub-clause (iii.) of clause (b) has been complied with. (See also sub-clauses (a), (b) and (c) of Rule 9.)
- (ix.) In the event of the engine end of a train being foul at an Unattended Station, the Driver must immediately take steps to protect such obstruction, and draw the attention of the Guard to the matter.



## TRAIN SECTION ORDER SYSTEM.

set out in clause (a), Form "B" is to be used and issued prior to the departure of the trains from the Control Station at each end of the Section, in accordance with Rule 4.

### VICTORIAN RAILWAYS.

#### **Form B. TRAIN SECTION ORDER.**

(Referred to in clause (b) of Rule 8.)

To be used when Crossing Places as set in ordinary or Special Printed Time Tables are temporarily changed, or in case of a Special being run for which no Time Table has been issued:—

..... Station. Date.....  
 Guard } of No..... Train. Proceed from  
 Driver }  
 ..... to ..... and there cross the  
 ..... train, \*thence proceed to.....  
 and there cross..... train, thence to.....  
 for further instructions.

..... Station-master.

\*If only one train to cross between two Control Stations, delete "Thence proceed to..... and cross..... train."

**NOTE.**—All insertions must be made legibly. No alterations or erasures are to be made on Form to be issued.

To be printed in Black ink on Pink paper, with Red Cross full length of Form.

(c) *Section Order "C."*—This Form is to be used when any train that is scheduled on printed Time Table to cross at a Station in the Division is not running; this will include trains scheduled to run as required, but when a train is scheduled to run on certain days only, Section Order "C" must not be used on the "off" days.

This Form must, however, be used in all cases when a train which is scheduled to run on certain days, and other days when required, does not run.

### VICTORIAN RAILWAYS.

#### **Form C. TRAIN SECTION ORDER.**

(Referred to in clause (c) of Rule 8.)

To be used when Trains, Scheduled on ordinary or Special Time Table, are not running:—

Guard } of..... Train.  
 Driver }

No..... train is not running to-day, and therefore your train will not cross that train at..... and you may proceed from\*..... to..... and there cross..... train, thence to..... for further instructions.

\*Delete "..... to..... and there cross..... train, thence," if no train to cross between the Station despatching and the next Station at which there is a Control Officer-in-Charge.

## TRAIN SECTION ORDER SYSTEM.

**NOTE.**—All insertions must be made legibly. No alterations or erasures are to be made on Form to be issued.

To be printed in Black ink on Blue paper, with Red Cross full length of Form.

(d) *Section Order "D."*—This Form is to be used when for any reason it becomes necessary to cancel Section Orders "A," "B," or "C," and alter the sectional running of a train after it has entered the Section. (See Rule 9.)

### VICTORIAN RAILWAYS.

#### **Form D. TRAIN SECTION ORDER.**

(Referred to in clause (d) of Rule 8.)

To be used when train has arrived at an Unattended Station for which a Section Order has been issued, and it is necessary to arrange with Guard for original Section Order to be cancelled and train to proceed:—

Guard | of No.....Train. The Crossing  
Driver |

Order issued to you at.....to cross.....  
train at.....is cancelled owing to†.....

.....

Your train will now proceed\* to.....and there cross  
.....train, thence to.....for further  
instructions.

Signed by.....  
.....Grade.....Station

Countersigned by.....  
.....Grade.....Station

Countersigned by.....Guard.....

†Reason for alteration.

\*If no train to cross before arriving at next Control Station delete "to.....and there cross.....train, thence."

To be printed in Red ink on White paper, with Red Cross full length of Form.

(e) No erasures or alterations must appear on "Train Section Orders" issued to the Train Crew. The number of forms required for issue to the Train Crew, together with a spare copy, must be filled in simultaneously with indelible pencil and carbon copied. The spare copy must be retained by the Control Officer, and dealt with as laid down in Sub-clause (i.) hereof.

The "Train Section Order," when prepared, must be compared by the Control Officer repeating it sentence by sentence to the Control Officer at the other end of the Division, who will repeat it back as received. Names of trains and Stations referred to in the Order must be repeated word for word, and spelt letter by letter, this: "Number Twenty, T-w-e-n-t-y; Up, U-p; Wakool, W-a-k-o-o-l."

## TRAIN SECTION ORDER SYSTEM.

When the "Section Order" has been repeated back, the Control Officer will endorse on the spare copy the words "Repeated back, O.K.," together with the time and the name of the person repeating the Order.

(i.) On arrival of trains at Control Stations "Train Section Orders" must be collected by the Station-masters and cancelled by writing the word "Cancelled" across them, with Time, Date, and Signature, and forwarded with the "Train Register Book," together with all messages sent in connection with Train Orders, to the Block and Signal Inspector, Flinders-street, who must arrange for them to be checked with the Train Register Book and filed for reference.

(ii.) The times of arrival and departure of all trains must be entered in Train Register Book at Control Stations, and remarks inserted regarding the "Train Section Orders" issued, also particulars of any arrangements made for Amended Section Orders or side-tracking of trains in the Division.

9. (a) When trains are scheduled to cross at an Unattended Station, the Guard of the train arriving first must, if the other train cannot be seen or heard approaching, use the portable telephop or telephone provided at the Station to ascertain its movements, or to receive further instructions. In such a case, if the train running in the opposite direction be late and arrangements had been made prior to its departure from the Control Station to amend its crossing place, and this had been done by agreement between the Control Officers at each end of the Division, an amended Section Order may be issued as laid down hereunder.

(b) The Guard of the train which has arrived at the original Crossing Station must be advised accordingly, and an amended Section Order issued on Form "D." Both Station-masters must be brought to the telephone. The Station-master at the Station in advance must forward to the Guard the message contained in Rule 4, which the Guard will write out on a Telegraph Form and repeat back.

(c) The Control Officer at the Station in the rear, who issued the Section Order for the train waiting at the Unattended Station, will then forward a message as per Form "D." When the message is completed the Guard must repeat it back, and it must be O.K.'d by the Control Officer at each end of the Section, who must each give the Guard his name and title. The Guard will then fill in a duplicate form for himself, attach the telegraph message to the Section Order and hand it to the Driver of the train, and collect the original Section Order. The train may then proceed in accordance with the amended order.

In no case must this Section Order be issued to the Guard if the opposing train has left the Control Station without the Changed Section Order having been issued to the Train Crew. See clause (b) of Rule 8.

Guards must be supplied with a book of Forms "D" when running on Lines worked under this system.

### 10. Trains Scheduled to Run to a Non-Attended Station and Return.—

(a) When a train is scheduled to run from a Control Station to an Unattended Station and return, without proceeding through the Division, the Guard must on arrival at the Unattended Station act as Station-master during the time his train is at such Station.

(b) The Control Officer at the Control Station in the rear of the Unattended Station from which the train is to return must issue Section Orders for the return as well as the forward journey, and in addition must see that the Driver, or Drivers, and Guard are in possession of a Time Table for both journeys. He must also instruct the Guard to communicate with him at a specified time prior to the time fixed for the departure of the train on the return journey, so that an amended Section Order may

## TRAIN SECTION ORDER SYSTEM.

be issued if necessary. The Guard must also be given written information regarding the train or trains, specifying Up or Down, which will pass the Unattended Station while his train is there.

(c) The train terminating at and returning from an Unattended Station must on arrival at the Unattended Station be placed in the Crossing Loop and the Points set and secured for the Platform Road.

Immediately on arrival the Guard must communicate with the Control Officers at the Control Stations on each side to receive any necessary instructions and ascertain how other trains are running.

(d) In the event of it being necessary to use the Main Line for shunting purposes, the movement must be protected prior to the Main Line being fouled in accordance with the following instructions:—

(i.) Two Detonators must be placed 100 yards and three Detonators 440 yards from the outer facing points at each end of the Station. The Detonators must not be removed until the Main Line is again clear and the Points set and secured for a Clear Line.

(ii.) If there be an Assistant Guard with the train it will be his duty to fix the Detonators under the instructions of the Guard, but if there is no Assistant with the train the Station-master at the Control Station in the rear must arrange for a Repairer or other competent employe to perform this duty.

In the event of no other employe being available, the Guard must himself fix and remove the Detonators.

(iii.) The Drivers of all trains which are due to pass such unattended Station while a train, as set out above, is there must be instructed in writing by the Control Officer at the Control Station from which it starts of the circumstances, and informed that such Station must be approached cautiously.

(iv.) During darkness or foggy weather a Red Light must be placed on the leading vehicle at each end of any train or vehicles fouling the Main Line.

**11. Following Trains, and Trains Side-tracked for Another Train to Pass.**—(a) On Lines worked under the "Train Section Order" System a train must not follow another until an interval of 40 minutes has elapsed from the time the previous train has departed, and, until that train has been reported as having arrived at the next Control Station ahead, or at an Unattended Station authorised by the General Superintendent of Transportation to be opened as a Block Post, the Driver of the next following train must be furnished with a "Notice of Train Ahead" in accordance with Rule 23 of Appendix II., Book of Rules and Regulations.

In order that this instruction may be observed, the employe in charge at Block Posts and Control Stations must report the arrival of all trains to the Control Station or Block Post next in the rear. Guards of trains must also strictly comply with clause (b), Rule 5, of these instructions.

(b) Guards of trains running on Lines worked under the "Train Section Order" System must examine the Time Tables issued for their

## TRAIN SECTION ORDER SYSTEM.

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guidance, to ascertain whether their train is being followed within a reasonable time by another train and the description of such train. The Guard must also note whether such train is timed to pass his train at an Unattended Station, and in such a case arrange for his train to be side-tracked in the Crossing Loop at such Station, and the Points set and secured for the Main Line in ample time to permit the following train having a clear run through the Station.

- (i.) The Control Officer at the Control Station from which the trains start must instruct the Guard of the preceding train in writing of the time that the following train will depart from the Control Station, and if the following train is timed to pass the first train also specify the time and the Station where it will take place.

The Officers-in-Charge must also see that Guards are in possession of a Time Table for the following train, and Guards must keep Drivers advised of the position.

- (ii.) When a train is followed within a reasonable time by another train, whether the following train is timed to pass before reaching the next Control Station or not, and the Guard of the first train finds that his train is losing time either by working at intermediate Stations or from any other cause, he must communicate with the Control Officer at the Control Station in the rear either by portable telephone, if one is carried on the train, or by the telephone at an Unattended Station, in ample time to obtain instructions regarding the side-tracking of his train.
- (iii.) When a train has to be side-tracked at an Unattended Station it must arrive direct in the Crossing Loop and the Points re-set and secured for the Main Line.
- (iv.) After being side-tracked for another train to pass, the Guard of the side-tracked train must not permit the Main Line to be fouled for shunting purposes until the following precautions have been adopted:—

Two Detonators must be placed 100 yards and three Detonators 440 yards from the outer Facing Points in the direction from which the following train is approaching, and must not be removed from the Line until the Main Line is again clear and the Points set and secured for a Clear Line.

The Main Line must be cleared and Points set and secured for a Clear Line at least 10 minutes prior to the passing train being due to arrive.

- (v.) The Driver and Guard of the following train must be instructed in writing by the Control Officer at the Control Station at what Unattended Station their train will pass a preceding train, and to approach such Station cautiously.

12. Whenever the outer Detonators are exploded in the circumstances set out in Rules 10 and 11 hereof, the Driver must bring his train under complete control and proceed cautiously to within 100 yards of the outer



## TRAIN SECTION ORDER SYSTEM.

Facing Points, and there bring his train to a stand and await verbal instructions from the Hand Signalman or the Guard in charge of the Station.

**13. Train an Unusually Long Time in Section.**—When a train is an unusually long time in the Section, the Control Officers at the Control Stations on both sides must confer with a view to ascertaining the cause, and agree as to the action to be taken.

**14. (a) Train or Portion of a Train Left on Single Line.**—When a train or portion of a train is left upon the Single Line from accident or inability of the engine to take the whole forward, the Driver must not return for the rear portion of his train except by written instructions from the Guard, as prescribed in Regulation 243.

(b) If when running forward to dispose of the first portion the Driver should arrive at a Control Station or at a Station where there is a Station-master, he must inform the Station-master of the circumstances, and take his instructions regarding the disposal of first portion of train.

If the Driver with the first portion arrive at an Unattended Station where a Crossing has been arranged for his train, he must approach such Station as laid down in paragraph (iii.), sub-clause (b), of Rule 6. If the train from the opposite direction is at the Station, he must inform the Guard-in-Charge of the circumstances, and the Guard must arrange for the disposal of the first portion so that the engine will return to its train as soon as possible.

Should the opposing train not be at the Station, the Driver with the first portion must draw direct into the Crossing Loop and dispose of the first portion of his train by placing it in a Dead-end clear of the Running Line, if one is available. Should it be necessary to foul the Main Line at the end from which the opposing train is to arrive, the Driver must, before doing so, send his Fireman forward to protect the movement.

(c) The Guard of the divided train must see that the Driver is in possession of a Standard Padlock Key before he leaves with the first portion, and after securing the rear portion of his train must protect it in the rear in accordance with Regulation 239.

(i.) The Driver will be responsible, if the first portion be disposed of at an Unattended Station, and no train be at such Station, for seeing that the Points are left in their normal position with Locking-bars and Scotch Blocks on and locked before returning to his train.

(ii.) If a train be at the Station the Guard of the train will be responsible for Points, etc., being secured.

(d) When two Guards are employed with the train, the front Guard (or where both Guards ride in the rear, the Under Guard) must, after securing the rear portion of the train, uncouple it, and ride upon the last vehicle of the front portion; the other Guard, after securing the rear portion, must go back and protect his train in accordance with Regulation 239.

(i.) In such a case, the Guard who rides with the first portion will act at the Unattended Station, as laid down for the Driver in sub-clause (b).

## TRAIN SECTION ORDER SYSTEM.

(e) When there is only one Guard with the Train, the Fireman must, after securing the rear portion of the train, uncouple where required, and ride upon the last vehicle of the front portion, and the Guard must take the necessary measures to protect the rear portion.

(f) After sunset, or in foggy weather, before the front portion is drawn forward, a Red Light must be placed on the front vehicle of the rear portion by the man who divides the train. As soon as the first portion has been drawn forward sufficiently far, either by day or night, the Under Guard or the Fireman must place two Detonators upon the Line about 200 yards from the front of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

### 15. Section Obstructed by Accident or by Disabled Train.—

(a) If a train should become disabled between two Control Stations, the Driver must hand to his Fireman a written order, addressed to the Station-master at the nearest Station from which assistance can be obtained, stating the nature of the failure, the place where it has occurred, and authorising the Station-master to allow a Relief Engine to proceed to remove the disabled train. The Station-master, on receiving the written order, must endorse it, arrange for the despatch of a Relief Engine or train, and return the order to the Fireman, who must hand it to the Driver of the Relief Engine, and accompany him to the place where he left the disabled train. The Driver, of the Relief Engine or Train, after removing the whole of the disabled train to the end of the Section to which it was proceeding, or back to the Station from which it started, must deliver up the written order to the Station-master. Should arrangements be made to take the disabled train back to the Station in the rear, the Relief Driver must be in possession of the written authority from the Station-master. (See clause (b) of Rule 16, for trains setting back to an Unattended Station.) In either case, the Driver must not move towards the Station in the rear until he has received such written permission.

(b) The Fireman, when proceeding to the nearest Station for assistance, must place Detonators on the Line as directed in Regulation 239, and the Guard must protect his train in the opposite direction. Should the stoppage or failure occur to an engine not attached to a train, or a train worked by two men only, the Fireman or Guard who must act as laid down for the Fireman, in clause (a), when proceeding for relief, must place Detonators on the Line as per Regulation 239, for the protection of the disabled engine or train, and the Driver, after securing his engine or train must similarly protect in the opposite direction, and then return to his train.

(c) The Driver of the disabled engine or train must not allow his engine or train to be moved until the Relief Engine or Train arrives, unless satisfactory arrangements have been made to prevent the Relief Engine or Train from coming to his assistance, and the man to whom the order was given has returned and handed the order back to the Driver.

(d) If when proceeding with the written order for a Relief Engine or Train, the Fireman arrive at an Unattended Station, he must communicate from there by telephone with the Station-master to whom the written order is addressed; he must inform the Station-master of the particulars shown by the Driver on his written order, and the Station-master receiving the information must at once communicate the circumstances to the Station-master at the opposite end of the Division, and the two must then confer and agree

## TRAIN SECTION ORDER SYSTEM.

as to the most expeditious means of sending a Relief Engine or Train, bearing in mind whether there is an engine or train in the Division on either side of the disabled train. It might be possible to arrange for a train which is scheduled to cross the disabled train at an Unattended Station in advance or a following train in the rear of the disabled train to be utilised for relief.

If a train in advance is to be utilised, the Guard of such train or the Driver, in the case of a Light Engine, must be communicated with by telephone as soon as communication can be established or at the Station where the crossing is arranged. The Station-master at the Control Station in the rear of such train will then forward a message by telephone giving full particulars of the mishap, stating the place where it has occurred, and authorising the Driver to proceed towards the disabled train until stopped by the Guard or Fireman.

The same procedure must be adopted if practicable by the Station-master at the Control Station in the rear in respect of a following train.

When the Station-masters have agreed as to the course to be pursued, the Fireman must be fully informed of the arrangements to be made, and instructed as follows:—

- (i.) If the Relief Engine or Train is to be sent to the Unattended Station, where the Fireman has arrived with the order, he is to remain at such Unattended Station, stop the Relief Train or Engine by a Red Hand Signal, hand the written order to the Driver, and accompany him to the disabled train.
  - (ii.) If the engine or train is to be sent in from the Station at the opposite end to that at which the Fireman has arrived, he must return to his train, leaving the Detonators on the line, and inform the Driver and Guard of the arrangements that have been made, and hand the Driver's written order to the Guard, and the latter will continue to protect the disabled train, and accompany the Relief Engine or Train to the disabled train.
  - (iii.) The Station-masters at the Control Stations must make the best arrangements possible under the circumstances, and if it is considered expedient to side-track a less important train, and utilise the engine to bring on the disabled train to its destination, the train crews must be fully instructed as to the procedure to be adopted.
- (e) If, however, there be a Portable Telephone Apparatus on the train, it will not be necessary for the Fireman to proceed to a Station on either side, as set out in clause (a), but the Guard, after seeing that his train is protected in the rear in accordance with Regulation 239, must obtain from the Driver the "Train Section Order," and also a written order that he will not move his engine until relief arrives. The Guard will then communicate with the Station-master at either end of the Division, and the Station-master receiving the communication will act as laid down in clause (d), and when the arrangements are completed, the Station-master who arranges relief will send a telephone message to the Guard informing him of the arrangements which have been made for relief, and the Guard will then act as follows:—
- (i.) If the Relief is to come from the front, the Guard must arrange for the Fireman to proceed in that direction with the

## TRAIN SECTION ORDER SYSTEM.

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Driver's order. The Fireman must protect the Line in accordance with Regulation 239, remaining near the Detonators at 1200 yards, exhibiting a Red Hand Signal to stop the Relief Engine or Train, and after handing over the Driver's Order he must ride on the engine and point out to the Driver the position of the disabled train.

- (ii.) Should the Relief Engine or Train be sent in from the rear the Guard protecting the rear will act on that side, as shown for the Fireman in the preceding paragraph.

**16. (a)** If an accident or obstruction should occur, and the traffic is likely to be stopped for a considerable time, special arrangements must be made for working the trains to and from the Station on each side of the point of obstruction.

(b) If the accident be caused by a landslip, flood or similar cause, in the event of a train being in the Section, arrangements may be made for the train to be pushed back to the Station in the rear, but, before this is done, the Guard must return to the nearest Station in the rear and obtain permission in writing from the Station-master for the train to return to such Station. In the event of the Station being an Unattended Station, the Guard and Fireman must return to such Station, and the Guard must hand the Fireman a written order authorising the Driver to push the train to that Station; the Fireman must then take the order to the Driver, and the Guard must remain in charge at the Unattended Station until the arrival of his train, and place down Detonators as in paragraph (iv.), sub-clause (b), of Rule 11. In either case the Driver must not move in the wrong direction until he has received such written permission.

The Guard must communicate with the Station-master at the Control Station in the rear, who must instruct the Guard as to the arrangements to be carried out.

When the train is being pushed back to the Station, the Fireman must, if the Guard be not on the train, carry out the duties specified on pages 396-399 for the Guard.

(c) Should the obstruction be caused by a disabled train the Guard must put the Driver in charge of the point of obstruction, and the Driver must give the Guard a written order addressed to the Station-master at the Control Station in the rear, stating the point of obstruction, and intimating that he will not allow the disabled engine or train to be moved until the Relief Engine or Train arrives. The Guard must then proceed to the Station in the rear and hand the order to the Station-master, advising him fully of what has occurred. When the Guard has proceeded to the Station in the rear the Driver of the disabled train must hand his Fireman a written order addressed to the Station-master at the Control Station in advance, stating the point of obstruction, and intimating that he will not allow the disabled engine or train to be moved until the Relief Engine or Train arrives. The Fireman must then proceed to the Station and hand the order to the Station-master, advising him fully of what has occurred. On receipt of the information, the Station-masters at the Control Stations on each side of the obstruction must confer, and make all necessary arrangements.

## TRAIN SECTION ORDER SYSTEM.

(d) If when proceeding with the written order for a Relief Engine the Guard or Fireman arrive at an Unattended Station, he must communicate from there by telephone to the Station-master to whom the written order is addressed; he must inform the Station-master of the particulars shown by the Driver on the written order, and the Station-master must on receipt of the particulars arrange to despatch the Relief Engine or Train, informing the Driver of the particulars communicated to him by the Fireman, and instructing him to stop at the Unattended Station for the Fireman or Guard.

The Station-master must arrange to send an employe to take charge of the Unattended Station, or if a competent man cannot be obtained for that duty, to send an employe to act as Hand Signaller under the instructions of the Guard. The Station-master must also arrange to send a supply of Detonators, a Red and a Green Flag, a Hand Lamp trimmed and filled, and the necessary stationery, Forms, and an indelible pencil.

After communicating with the Station-master, the Guard or Fireman must, if a train or engine is to be sent from that end of the Section, remain at the Unattended Station until the arrival of the Relief Engine. He must then hand the written order to the Driver of the Relief Engine, and accompany him to the place where he left his train.

(e) If, however, on arrival of the Guard or Fireman at the Unattended Station, a train be waiting or approaching from the opposite direction, the particulars shown on the written order must be communicated by telephone to the Station-master to whom the Order is addressed, and the Station-master must arrange for the train, which is at or approaching the Unattended Station, to proceed as a Relief Train, accompanied by the Fireman or Guard, as laid down herein.

When, under these circumstances, the Relief Train enters from the Station in advance the Driver must be accompanied by the Fireman of the disabled train, and he must instruct his own Fireman to remain in charge of the Unattended Station until the arrival of the employe appointed by the Station-master, or return of the train with the Fireman of the disabled train; before leaving the Unattended Station, the Driver of the Relief Engine must obtain a written order from the man left in charge of the Station, authorising him to return with his train to that Station from the point of obstruction. If, under similar circumstances, the Relief Train enters from the Station in the rear, the Driver of such train must be accompanied by the Guard of the disabled train, and he must instruct his Fireman to remain in charge of the Unattended Station until the arrival of the employe appointed by the Station-master, or return of the train with the Guard of the disabled train; before leaving the Driver must, however, obtain a written order from the man left in charge of the Unattended Station authorising him to return to that Station from the point of the obstruction.

After the Relief Engine or Train has entered the obstructed Section, the employe left in charge of the Unattended Station must place Detonators in the rear of the Station as laid down in section iv., sub-clause (b), of Rule 11, and exhibit a Signal to prevent any engine or train from entering on to the Single Line until the Relief Engine or Train has arrived back with the written order. The Guard of the disabled Train at the Station in the rear, and the Guard of the Relief Train at the Station in advance, to suitably instruct the Fireman in the duties to be performed.

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(f) The Guard and Fireman of the disabled train when proceeding on foot to the rear and advance Stations respectively must place Detonators on the rail, in accordance with Regulation 239, and must, except as laid down in clause (i.) hereof, accompany the Relief Train on their respective sides on each trip to and from the obstruction and the Non-attended Station, until such time as they are relieved or the obstruction has been cleared; when returning with the Relief Train from the obstruction, the train must be stopped, and Detonators must be again placed on the rail by the Guard or Fireman, as the case may be.

(g) The Station-master on each side of the obstruction must, as soon as possible, send a competent Transportation employe to take charge of the Unattended Stations next to the obstruction, but until that is done the following arrangements must be carried out:—

(h) The Station-masters at the Control Stations must arrange with the Guard or Fireman, as the case may be, in respect of the conduct of traffic on their side of the obstruction, and trains or engines proceeding to or from the obstruction must be dealt with on each trip in accordance with clauses (e) and (f) hereof.

(i) In the event of it being necessary for a Break-down Van train to proceed to the obstruction, and before its return another train is required to enter the obstructed section on that side for the transfer of passengers, or any other purpose, and return to the Station from which it started, the Guard or Fireman need not accompany the Break-down train, but the Driver and Guard of such train must be given written instructions stating the place of obstruction, and authorising the train to proceed cautiously toward the obstruction, but not to return from the disabled train until authorised in writing by the person in charge at the Station.

In such a case, the Guard of the Break-down train, on arrival of his train at the obstruction, must immediately protect in the rear, in accordance with Regulation 239, and when the work is completed, and the Break-down train requires to return, the Guard must return to the Station, and obtain such written permission.

If at an Unattended Station the Guard or Fireman of the disabled train must remain at such Station, and protect as laid down in these instructions.

(j) On the arrival at an Unattended Station of a train which has returned from the obstruction, and is required to proceed to the Control Station on that side, it must not be permitted to depart from the Unattended Station until the Station-master at the Control Station has been communicated with, and the Driver has been handed a "Train Section Order." The Section Order in this case may be made out on Form "D" by the Guard of the train, and handed to the Driver. The text of the form to be altered as required.

(k) In the event of a competent employe arriving to take charge of an Unattended Station on either side of the obstruction, he must arrange to carry out the duties laid down for the Guard or Fireman at such Station, acting under the instructions of the Control Officers in accordance with these Rules.

(l) In the event of the obstruction being caused by a landslip, flood, or similar cause, and it is necessary to work traffic to the obstruction on

## TRAIN SECTION ORDER SYSTEM.

each side for the transfer of passengers or goods, arrangements must be made to place a man to protect the obstruction on each side, in accordance with Regulation 239.

If the next Station on one or both sides of the obstruction be an Unattended Station, a man must also be placed at such Station, and traffic conducted in accordance with this Rule.

(m) The Stationmaster, or the Guard or Fireman of the disabled train, as the case may be, at the Station on each side of the obstruction must keep a check of the orders issued in accordance with clause (e), and on the return of each train from the obstruction such order must be collected from the Driver, and the word "Cancelled," with time and date, written across the order.

When the Line is again clear, the first train required to do so must not be allowed to pass the point of obstruction unless authorised by the Way and Works Branch Representative in Charge of Repairs, nor without written authority from the person in charge of the next Station in advance of the place where the obstruction existed, and to which the train is proceeding.

When this train has passed between the two Stations and all Orders issued are accounted for, the Control Officers will arrange for ordinary working to be resumed.

(n) Should the obstruction be caused by a Light Engine (or by any train worked by two men), a Relief Train or Engine must first be obtained from one end of the Section by the Fireman (or Guard), as laid down in Rule 15; and, if necessary, arrangements must be made for working the traffic in accordance with this Rule. The Driver must, after securing his engine or train, protect it in the opposite direction to which the Fireman (or Guard) proceeds for Relief, and then return to his engine or train.

17. The system of Working Single Lines of Railway by Train Section Orders is authorised on the Lines or portion of Lines specified hereunder:—

Line or Portion of Line.	Pages of this Book on which Local Special Instructions appear.
Barnes-Balranald	See page 738.
Colac-Crowes	See pages 772-774.
Horsham-Hamilton	See pages 777-780.
Branxholme-North Portland	See pages 777-780.
Bittern-Stony Point	See Special Instructions.
Upper Fern Tree Gully-Belgrave	See Special Instructions.

**AUTOMATIC AND TRACK CONTROL SIGNALLING ON  
SINGLE LINES.**

## Rules for the Automatic and Track Control System of Signalling on Single Lines of Railway.

**1. Definitions.**—In addition to those specified in Regulation 1, the following definitions will be applicable in these Rules:—

(a) "SINGLE LINE SECTION" shall mean the entire section of the track extending between adjoining Crossing Stations.

(b) "TRACK SECTION" shall mean any division of the Single Line Section, the entrance to which is governed by a Fixed Signal.

(c) ATTENDED CROSSING STATION shall mean a Crossing Station at which, ordinarily, a Station-master or Signalman is in attendance.

(d) UNATTENDED CROSSING STATION shall mean a Crossing Station at which, ordinarily, no employe is in attendance until the arrival of a train, when, unless otherwise arranged, the Guard shall be in charge of the Station until the departure of his train; when two trains are at the Station, the Guard of the train arriving first shall be in charge.

**2.** (a) On Lines worked under this System of Signalling, a Single Line Section may be divided into two or more Track Sections; the entrance of a train into each Track Section is controlled by a Fixed Signal.

(b) Under this system of Train Signalling, Train Staffs or Tablets are not used.

(c) Attention is directed to the instructions on page 267 respecting the working of Rail Motor Inspection Cars on Lines where Automatic Signalling is in force.

**3. Object of the System.**—(a) The object of the Automatic and Track Control System of Train Signalling on Single Lines is:—

(i) WHEN TWO OR MORE TRAINS ARE TO PROCEED IN THE SAME DIRECTION.—To prevent more than one train being in a Track Section at the same time; and

(ii) WHEN TRAINS ARE TO TRAVEL IN OPPOSITE DIRECTIONS ON THE SINGLE LINE.—To prevent more than one train being on the Single Line Section between two Crossing Stations at the same time.

(b) The foregoing principles are maintained as follows:—

(i) IN THE CASE OF TRAINS PROCEEDING IN THE SAME DIRECTION.—By the Fixed Signals being electrically secured at the Stop position unless the Track Section ahead of the Signal is clear; and

(ii) WHEN TRAINS ARE TO PROCEED IN OPPOSITE DIRECTIONS.—By the Signals being electrically controlled and interlocked so that it is not possible for the Signals controlling the entrance to the Single Line Section at opposite ends to simultaneously exhibit a Signal to proceed.



## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

**4. Fixed Signals.**—(a) In addition to the ordinary control of Fixed Signals referred to in Rule 3, any of the conditions shown hereunder will at once replace a Fixed Signal to Danger and secure the Signal in that position:—

- (i) Any metallic or other conducting substance so placed as to form a connection between the rails;
  - (ii) A broken or displaced rail; or
  - (iii) Any wire bond becoming detached or broken.
- (b) If any defect hindering, or likely to hinder, the proper working of the Signals be noticed by any employe, he must at once communicate with the nearest Station-master, in order that the defect may be remedied without delay.

(c) The normal position of the Fixed Signals, that is, when the Sections are unoccupied, is as shown hereunder:—

Class of Signals.	Normal Indication.
<p>(i.) AUTOMATIC SIGNALS:—</p> <p>(a) At the entrance to Unattended Crossing Stations; these signals are sometimes referred to as "Arrival Signals" ..</p> <p>(b) At intermediate places between Crossing Stations .. ..</p>	<p>"WARNING"</p> <p>"PROCEED"</p>
<p>(ii.) HOME SIGNALS; sometimes referred to as "Departure Signals" .. ..</p>	<p>"STOP"</p>

**5. HOME SIGNALS.**—Home (Departure) Signals control the entrance of trains to the Single Line. No train must pass the Home Signal at the Danger or Stop position except as shown hereunder:—

*EXCEPTIONS:—*

- (i.) Where the traffic is being conducted by Pilot-working and the Driver is authorised by the Pilotman to pass the Signal. See Rules 10 and 16A.
- (ii.) When in accordance with Rule 16, it is necessary for a Relief engine or train to enter the Section for the purpose of rendering assistance to an engine disabled on the Single Line.
- (iii.) When in accordance with Rule 14 an engine is required to return from a Crossing Station for a portion of a train left on the Single Line.
- (iv.) When, in accordance with Special Instructions issued by the General Superintendent of Transportation, the Signalman is authorised to issue a "Caution Order" to pass the Signal.

**6. AUTOMATIC SIGNALS.**—Automatic Signals may be erected as specified hereunder:—

- (i.) At places intermediate between Crossing Stations; and
- (ii.) At the entrance to Unattended Crossing Stations.

Except as shown hereunder Automatic Signals may be passed at the Danger or Stop position as laid down in Regulation 74.

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

**EXCEPTIONS.**—Where an Automatic Signal is situated so as to control the entrance of a train to an Unattended Crossing Station, the following Directions must be observed by the Trainmen before the train passes such Signal at the Stop position as laid down in Regulation 74:—

- (i.) When in the normal position the Facing Points (Hand Points) at Unattended Crossing Stations are set for No. 1 (the straight) Road. If, however, the Section in advance of the Station be occupied by a train approaching in the opposite direction, the Signals at the Unattended Crossing Station will be at Danger, and if the first train to arrive is scheduled to enter the Station on No. 1 Road, the Driver, before proceeding to pass the Signal at the Stop position, must see that the Points are set and secured in the normal position; he must also satisfy himself that No. 1 Road is clear, and that no train is entering or leaving the opposite end of the Station; see clause (b), Rule 9.
- (ii.) When the Facing Points are reversed to lie for No. 2 (the Loop) Road, the Signal (the Arrival Signal) controlling the entrance of a train into the Station becomes secured in the Stop position. If the train is scheduled to enter the Crossing Station on No. 2 Road, the Driver must not pass the Signal at the Stop position until verbally instructed to do so by the Guard (or Fireman), who before giving such instructions to the Driver must see that the Points are set and secured for No. 2 Road, that the Line is clear into No. 2 Road, and that no train is entering or leaving the opposite end of the Station; when the train has arrived complete in No. 2 Road the Guard must at once re-set and secure the Points in the normal position for No. 1 Road; see clause (b), Rule 9.

**7. Position and Security of Points at Unattended Stations.**—(a) The Points at each end of an Unattended Crossing Station are Facing Points for trains entering the Station; the Points are operated by a lever at a quadrant stand fixed near the Points, the lever being normally secured for No. 1 Road by a standard padlock; the Guard and Driver of each train travelling on the Line worked under this system must therefore have a key of the special padlock in their possession, and, for emergency use, duplicate keys of Points at Unattended Crossing Stations must also be kept at the Attended Crossing Station on each side. A bolt similar to that in use on Plunger locked Points is provided for, and works simultaneously with, the Points.

At some Stations a white disc is fixed in the space between Nos. 1 and 2 Roads to denote the fouling point.

(b) The Points are electrically connected with the Signals so that when the Points are reversed from their normal position the Arrival Signal is automatically placed to the Stop position.

(c) An apparatus (the Releasing Switch) is provided by which, provided the Section ahead be clear, the Departure Signal may be replaced to the Warning or to the Proceed position when the points are set (trailing) for the departure of a train from No. 2 Road; the mode of operating the Releasing Switch is fully explained in clause (g) of Rule 9. The Releasing Switch is contained in a Box, the cover of which is secured by a padlock of the same pattern as the lock in use for the Hand Points.

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

### **8. Working of Fixed Signals.—ATTENDED CROSSING STATIONS.**

—(a) At an Attended Crossing Station, the Departure Signal is electrically interlocked with the opposing Departure Signal at the next Crossing Station—that is, the Down Departure Signal at one Station is electrically locked with the Up Departure Signal of the next Crossing Station on the Down side, so that it is impossible for both of these Signals to be showing a Proceed indication at the same time.

(b) A Track Indicator is provided by which the Signalman may know when the Departure Signal is electrically released.

When the Single Line Section is clear and the opposing Departure Signal at the next Crossing Station in advance is at Stop, the Track Indicator shows "TRACK CLEAR."

When a train, travelling away from the Station, is in the first Track Section ahead of the Departure Signal, or when a train is approaching in the opposite direction, or when the opposing Departure Signal at the Station in advance is at Warning or Proceed, the Track Indicator shows "TRACK OCCUPIED."

(c) When a train is ready to proceed on the Single Line and the Track Indicator shows "Track Clear," the Signalman must release the electric control of the Departure Signal which will then go to the Proceed position; this operation secures the opposing Departure Signal at the Stop position. When the front of the train has entered the Section and passed the Departure Signal this Signal will be automatically replaced to the Stop position, and the Track Indicator will show "Track Occupied" and the Signalman must again apply his electric control to the Departure Signal.

(d) If one or more trains be required to follow in succession before a train is to arrive from the opposite end of the Single Line, the Signalman must when the Track Indicator shows "Track Clear," release his electric control and the Departure Signal will then go to the Warning position for the second train, and so on for each following train.

(e) When the first train reaches a predetermined point approaching the Arrival Signal at an Unattended Crossing Station, the Departure Signal controlling the entrance of that train into the Single Line section ahead automatically displays a Proceed indication, always provided that the first Track Section ahead of the Station is "Clear," that there is no train approaching in the opposite direction on any Section of the Single Line and that the opposing Departure Signal at the next Crossing or Terminal Station is at the Stop position.

(f) If when the Signalman, at an Attended Station or the Guard at an Unattended Station takes off his electric control the Departure Signal should remain at the Stop position, he should observe the Track Indicator, and if the Track Indicator show "Track Clear," and the full running time of the Section has elapsed, he must repeat the operation of his electric control, and, if after reasonable interval the Signal still fail to go to the Warning or Clear position, the Signalman (unless the services of an Electrical Fitter can be readily obtained), must, except where instructions are issued to the contrary, arrange to conduct the traffic by Pilot-working, see Rule 10.

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

Before proceeding to institute Pilot working, the Station-master, where the train is waiting, must communicate with the nearest Station-master at the Station in advance if it be an Attended Station, and endeavour to ascertain whether the failure of the Signal to Clear is due to a train being on the Single Line. If practicable, inquiry should be made regarding the condition of the Fixed Signals at the Unattended Crossing Station; for example:—

A Down train has been despatched from Crossing Station "A" to an Unattended Crossing Station, "B" and the Signaller at "A" is unable to operate his Down Departure Signal for a second train.

If at "B" the Points are in their normal position, the straight Road clear, and the Up Arrival Signal is in the Warning position, the Down train has either passed through or has not yet arrived outside "B." If the Up Arrival Signal be at Stop the Down train is in the Section approaching "B."

If there be any doubt as to whether the Down train has passed "B," then the Up Releasing Switch at "B" should be operated to ascertain whether the Up Departure Signal at "B" will clear. If the Single Line Section is unoccupied the Up Departure Signal should display the Proceed Indication; immediately after testing the Up Departure Signal, the cover of the Releasing Switch Box must be closed and locked, when the Up Departure Signal will be automatically replaced to the Stop position.

The Down Departure Signal at "A" should then be tested, and if it still fail to clear, Pilot-working must be established in accordance with Rule 10.

(g) When trains which have to cross each other are approaching an Attended Crossing Station at the same time in opposite directions, the Signals in both directions must be kept at the Stop position, and when the train which has to be first admitted into the Station has been brought quite or nearly to a stand, the Home Signal applicable to such train may be placed to the Proceed position to allow it to draw forward to the Station, and, after it has come to a stand and the Signaller has seen that the Line on which the other train will arrive is clear, the necessary Signals for that train may be placed to the Proceed position.

**9. UNATTENDED CROSSING STATIONS.**—(a) When trains are approaching an Unattended Station in opposite directions at the same time, the Automatic Signal in the rear of the Arrival Signal will show a "Warning" Signal even though the Arrival Signal be at the Warning or the Stop position; it is therefore possible for a Driver to find two successive Signals displaying the Warning Indication. When a Driver finds the Warning Indication displayed on the Signal next in the rear of an Arrival Signal he will understand that—

- (i) The Arrival Signal is at the Stop position, or
- (ii) A train is closely approaching the Unattended Station in the opposite direction.

(b) When trains which have to cross each other are closely approaching an Unattended Crossing Station at the same time in opposite directions, the Signals in both directions will be automatically placed to the Stop position

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

and, when the first train to arrive has come to a stand at the Signal controlling the entrance to the Station, the train must be worked into the Station as prescribed by Regulation 74, and in accordance with sub-clause (i) and (ii) hereunder:—

- (i) If the train be scheduled to arrive on No. 1 Road, the Driver, before proceeding to pass the Signal, must see that No. 1 Road is clear, and that no train is entering or leaving the opposite end of the Station.
- (ii) When the train is scheduled to arrive in No. 2 Road, the Driver must not pass the Signal until he is verbally instructed to do so by the Guard (or Fireman), and before giving such instructions, the Guard (or Fireman) must see that the Line into No. 2 Road is clear, that no train is entering or leaving the opposite end of the Station, and that the Points are properly set and secured for No. 2 Road.

(c) Trainmen must bear in mind, however, that the "Arrival" Signal which controls the entrance of a train to an Unattended Station will be found at the "Warning" position if the train approaching in the opposite direction has not reached the point at which it will reverse such Signal to the Stop position.

It may be that a train that is scheduled to meet another at an Unattended Crossing Station shall arrive before the train expected from the opposite direction, and the Trainmen may find the Arrival and Departure Signals at Proceed; in such case the Trainmen must be careful to observe the schedule instructions. If the first train is scheduled to arrive on No. 1, it may be worked direct into the Station with the necessary care to avoid overrunning the fouling point of No. 2 Road, and when the train has come to a stand on No. 1 Road the Guard or Fireman, according to instructions, must at once go forward and set the Points (Facing for the approaching train) to lie for No. 2 Road; the reversing of these Points will automatically replace the Signals at the Unattended Crossing Station to the Stop position and clear the intermediate Automatic Signal or the Departure Signal at the next Crossing Station ahead, if the train expected from the opposite direction has not already passed these Signals, and if the Points are not so reversed, this train will be detained at the Fixed Signals referred to. If, however, the first train to arrive be scheduled to arrive on No. 2 Road, the Driver must not pass the Arrival Signal even though it be displaying a Proceed Signal; when the train has stopped at the Arrival Signal the Guard or Fireman, according to their instructions, must at once go forward and securely set the Facing Points for his train to enter No. 2 Road and, after seeing that the Line is clear into No. 2 Road, and that no train is entering or leaving the opposite end of the Station, he must verbally instruct his Driver to proceed (passing the Arrival Signal at the Stop position) on to No. 2 Road. When it is not clear daylight the Guard or Fireman, as the case may be, must exhibit a Green light in addition to giving the verbal directions to the Driver.

(d) When the train has passed clear of the Facing Points the Guard must at once restore and lock the Points in their normal position, set for No. 1 Road, and when the train has stopped clear on No. 2 Road, the Arrival Signal for the train approaching in the opposite direction will go to Clear.

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

The attention of Drivers and Guards is specially directed to clauses (i) and (j) of Regulation 205.

(e) Usually the train due to arrive first should be worked on to No. 2 and stopped clear on that Road until the train approaching in the opposite direction has arrived clear on No. 1 Road; but in the event of the train scheduled to arrive first being late, then the train that actually arrives first should be worked on to No. 2 Road, and thus facilitate the crossing operations by having No. 1 Road clear for the second train.

Special instructions will be issued in regard to the Officer who is to determine the order of precedence of trains, and also in respect of working by "Section" or "Train Orders" in conjunction with the "Automatic and Track Control" System.

If trains are running out of course the Station-masters at each side of the Unattended Crossing Station or Stations must confer.

(f) **DESPATCHING A TRAIN FROM AN UNATTENDED CROSSING STATION.**—When the train is to be despatched from No. 1 Road the Departure Signal works automatically, provided the trailing Points be properly set and the exit from No. 1 Road be clear. If the Departure Signal be displaying a Warning or Proceed indication the Trainmen will know that the Track Section ahead or the entire Single Line Section in advance is clear, according to the Signal indication displayed and, when the Station work has been completed, the Guard may give the Driver the Signal to start in accordance with Regulation 194; if, however, the Departure Signal be at Danger, the Driver must not move his train forward to the Signal, but must keep it clear of the fouling point of No. 2 Road until the Warning or Proceed indication is displayed by the Departure Signal.

(g) When the train is to be despatched from No. 2 Road, certain preliminary steps and precautions become necessary:—When a Down train, for example, is being despatched from No. 2 Road, the Trainmen must, before setting the trailing Points for the movement, carefully note what Signal Indication is showing on the Up Arrival Signal.

If a Proceed indication be displayed at this Arrival Signal it denotes that no other Down train is closely approaching, otherwise the Signal would be at Stop. If the Signal be at the Stop position, thus indicating that there is a train on the Section in the rear, the men in charge of the train at the Unattended Station should be aware whether such train is travelling away from, or approaching them, and if it be another Down train approaching they must not attempt to foul the exit from No. 2 Road until the approaching train has arrived and stopped. If, however, the Up Arrival Signal be displaying a Proceed indication, or when the Down train (if one be approaching) has been stopped, the Guard of the Down train, that is to be despatched from No. 2 Road, must go to the Releasing Switch Box situated at the exit from the Station; he must open the cover of the Box and pressing the Plunger firmly home, hold it there for a couple of seconds, when the Departure Signal will go to the Warning or Proceed Position according to whether the Track Section ahead or the entire Single Line to the next Crossing Station be clear. When the Departure Signal has been placed to

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

Proceed or Warning by the Operation of the Plunger, the Guard must not close the cover of the box, but must at once set the trailing Points for his train to pass from No. 2 Road; when the front of the train has passed the Departure Signal the cover of the box of the Releasing Switch must then be closed and locked, and, after the whole of the train has passed over the Points, the Guard must restore and lock the Points in their normal position set for No. 1 Road, and the train may then be allowed to proceed. The locks for the Points and cover of the Releasing Switch Box are operated by the same key.

(h) Before giving a Hand Signal or verbal directions for train to pass over the Points at Unattended Crossing Station, the employe working the Points must see that they are set for the proper Road, and that the Catch-rod of the operating lever is firmly home in the notch, and immediately after the train has passed over them the Points must be re-set and locked in their normal position for No. 1 Road. Employes are reminded that although these Points are referred to as Hand Points, they are not self-acting as in the case of ordinary weighted Hand Points; as the operating lever is secured in the frame and the Points secured by means of a Plunger, the lever must be operated for each movement, and serious damage will result if the Points are not properly set for a trailing movement.

(i) When a train arrives on No. 1 Road at an Unattended Station, the Departure Signal should display a proceed indication if the Track Section ahead be clear and the Points in the normal position. If, however, the Signal remain at Stop when the Guard has reason to believe it should show Proceed, the Guard, after seeing that the Points are properly set for No. 1 Road, should try to release the Signal by the operation of the Releasing Switch. Should the operation of the Releasing Switch fail to clear the Departure Signal in the circumstances described above, or when it is desired to despatch a train from No. 2 Road, and the Guard has reason to believe that the Signal has failed, he must communicate the circumstances to the Station-master at the Crossing Station in advance, or, if unable to gain the attention of the Station-master in advance, to the Station-master in the rear, in which case the Station-master in the rear must, if practicable, communicate with the Station-master in advance of the Unattended Station.

The Station-master must keep in close communication with the Guard, and assist him in the methods of testing for the cause of the Signal failure, particular care being taken to ascertain that there is no train in the Section, that the Points are properly set, the Releasing Switch operated, and that the Pilotman's Key is in the normal position. If, however, the Signal cannot be released in the regular way, the Station-master in advance must place a man at the Unattended Station and arrange to institute Pilot working; see Rule 10.

**10. Working by Pilotman During Failure of Signalling Apparatus.**— (a) In the event of the failure of the Signal that controls the entrance of trains to the Single Line Section, steps must at once be

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

taken to have the defect remedied, but if this cannot be immediately done, the working of the traffic over the section must, **except where Instructions are issued to the contrary**, be arranged for by means of a Pilotman; if the Telegraph or Telephone communication is available, the Station-masters or other responsible officials at both ends of the Section must communicate by Telegraph or Telephone, and make the arrangements for Pilot-working (the communication being written on Telegraph Forms in the usual way). As soon as a definite understanding has been arrived at, the Station-master or other responsible official who undertakes to make the arrangements for working by Pilotman must appoint a competent person to act as Pilotman, and must fill up three or more, as may be necessary, of the printed Forms (*the Form, vide Rule 14 of Appendix II. page 236, Book of Rules and Regulations, must be used for this purpose, the necessary alterations being made with pen and ink; see specimen of altered Form at end of this Rule*) for establishing the system of Working by Pilotman during the failure of the signalling apparatus; one of these Forms, signed by the Pilotman, the Station-master must deliver, in the presence of the Pilotman, to the Signalmaster at the Station at his end of the section, and the others must be given to the Pilotman. When a Station-master himself acts as Pilotman, he must also address and give a copy of the Form to the person he leaves in charge of his Station.

- (i.) At each Crossing Station a special key, called the PILOTMAN'S KEY, is provided which, when withdrawn from its lock, secures at the Stop position the Signal controlling the entrance of a train into the section at that end of the Single Line. At Attended Stations this lock is placed adjacent to the Signal Control; at Unattended Stations it is placed in the Releasing Switch Box. The Pilotman's Key is enclosed in a case having a glass cover; the glass cover must be broken to gain access to the key.
- (ii.) When Pilot-working is being established on a section of the Single Line, the Officer or employe who makes out the Forms must, in the presence of the Pilotman, withdraw the Pilotman's Key that secures at the Stop position the Signal controlling the entrance of trains into the section on which Pilot-working is to be established. The key must be then handed to the Pilotman, who must retain it in his possession until Pilot-working has been cancelled and ordinary working is resumed. If, however, the Departure Signal at the end of the section at which the Pilotman is appointed, be in working order and displaying a Proceed Indication, an engine or train may be used by the Pilotman to convey the Pilot-working Forms to the opposite end of the Section, and, in such case, the Pilotman's Key must not be removed from its normal position until the engine or train with which the Pilotman is to proceed with the Forms has passed the Signal in the regular way, and the Signal has been replaced to the Stop position in the ordinary course by the train; the Driver, before entering the Section, must be instructed to wait for the Pilotman after passing the Signal.



## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

- (iii.) When the Pilotman arrives with the Forms at the opposite end of the Section and the Forms have been duly distributed and signed as laid down in clause (b) hereof, the Station-master at that end must, in the presence of the Pilotman, withdraw the Pilotman's key that secures at the Stop position the Signal controlling the entrance of the trains into the Section on which Pilot-working is to be established. The Pilotman will then have possession of both Keys, and the Signals at both ends of the Single Line Section will be secured at the Stop position; he must retain both Keys in his possession until Pilot-working has been cancelled and ordinary working is resumed, when he must return each Key to the Station-master at its "Home" Station, and the latter will be responsible for seeing that it is restored to its normal position in the lock, and that the necessary arrangements are made for renewing the glass cover.
- (b) The Pilotman, when in possession of the Pilotman's Key and satisfied that the Signalman has received the printed Form duly filled up, and that the Signalman understands that no train is to be allowed to enter the section until he returns, must proceed as quickly as possible along the Line to the other end of the section, but unless the Signal controlling the entrance to the Section over which Pilot-working is to be established assume the Proceed position, he must not use an engine or any railway vehicle other than a trolley or tricycle. On his arrival at the other end of the section the Pilotman must deliver a copy (signed by himself) to the Station-master (who must also sign the Form held by the Pilotman), and another to the Signalman on duty; the Signalman at each end of the section must know the man appointed as Pilotman, and must countersign the Form for Pilot-working held by the Pilotman, the Form held by each Signalman being in like manner countersigned by the Pilotman, and provided the Pilotman has also obtained possession of the Pilotman's key at that end, trains may then be allowed to enter the section in accordance with the following instructions:—
- (i.) The Pilotman must inform the Driver and Guard in charge of each train of the circumstances, and when practicable accompany every train, but when it is necessary to start two or more trains from one end of the Section under his control before a train has to be started from the other end, the Pilotman must order all trains to proceed except the last, upon the engine of which he must ride; when accompanying an Electric train the Pilotman must ride in the Motorman's Compartment with the Motorman; in the case of an engine or an Electric train assisting in the rear of the last train, the Pilotman must ride on the assisting engine or with the Motorman of the assisting train, as the case may be. If a special engine is supplied for the use of the Pilotman, he must, after personally starting the whole of the trains, follow or accompany the last train; when it is necessary for the Pilotman's engine to accompany the last train, it must

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

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be attached to the front of that train, but the Pilotman must ride on the train engine. After starting a train which he does not accompany, the Pilotman must not permit another train to enter the section until after the time usually taken by the preceding train to clear the Track Section has elapsed (in no case with a less interval than five minutes, and in those parts of the Line where a longer interval of time is prescribed, until such interval has expired). When admitting a train into a Section after the interval of time prescribed above, the Driver must be instructed by the Pilotman as to whether his train has been preceded by another train.

- (ii.) The Pilotman must wear a distinctive Badge, which, until the regular Badge can be obtained, must be a Red Flag tied round his left arm, above the elbow. The regular Badge is a Red Armlet, with the word "PILOTMAN" shown thereon in white letters.

*NOTE.—It will generally be found most expeditious for the Station-master at the opposite end of the Section to that at which the train is waiting, to undertake the arrangement of the Pilot-working, as the Pilotman will then only have to go through the Section in one direction to get the necessary Forms signed, namely, in the direction of the Station at which the train is waiting.*

- (iii.) Should the Pilotman give up the working to another, fresh Forms must be issued, on which the name of the new Pilotman must be inserted. The fresh Forms must be delivered by the new Pilotman and substituted for the old Forms, and the necessary signatures obtained on the fresh Forms; he must at the same time withdraw the old Forms and at once cancel them by writing the word "Cancelled," and the time, date, and his signature across the face of them. The issue of the fresh Forms must only be done by the person who arranged the Pilot-working to whom the new Pilotman must afterwards deliver the old Forms; the fresh Forms must not be issued till the Form and Badge have been collected from the Pilotman being relieved.
- (iv.) After one Pilotman has been relieved by another, the Pilotman who has been relieved must not ride upon any engine, nor in the Operating Cab or leading Van of an Electric train, until he resumes duty as Pilotman.
- (v.) Should the Signaller be changed during the time the Pilot-working is in operation, the man coming on duty must be made acquainted, by the man going off duty, with the arrangements in force, and with the person acting as Pilotman, and he must, before taking charge, countersign the Form held by the Pilotman.

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

- (vi.) Signalmen must not, on any account, allow any train to pass into the Section that is being worked by Pilotman, except under the Pilotman's instructions, and when he is present; they must also keep at the Stop position, the Signal applicable to trains entering upon the Pilotman's Section until the ordinary working of the traffic is resumed, but Drivers may pass such Signals when instructed to do so by the Pilotman. The Pilotman must obtain the permission of the Signalman before allowing a train to enter upon the Section.
- (vii.) When Pilot-working is in force, the Signal controlling the entrance to the Section must not be tested unless the Pilotman is present.
- (c) In the event of failure of Departure Signal at an Attended Crossing Station and the Crossing Station in advance is an Unattended Station, the Station-master at the Station where the failure exists must, when instituting Pilot-working, arrange for a competent employe to take charge of the Unattended Station.
- (d) Should the Telegraph or Telephone, as well as the Signal Apparatus, have failed, and the men at each end of the Single Line Section be unable to communicate with each other, the Station-master or other responsible official at the Station in advance of where the Signalling Apparatus has failed must arrange for Pilot-working; see Rule 12.
- (e) If the Signalling Apparatus be repaired after the Pilotman with the Pilot-working Forms has left the Station at which he was appointed, and before reaching the opposite end of the Section where the failure occurred, no train must be allowed to pass on to the Section until the Pilotman has arrived and completed the Pilot-working arrangements, which must remain in force until cancelled, as provided in clause (f) hereof.
- (f) When the Signalling Apparatus is again repaired and ready for use, and before ordinary working is resumed, the Station-master who instituted Pilot-working must make out and sign the necessary Cancellation Orders (the Form vide clause (g), Rule 14, of Appendix II., page 237, Book of Rules and Regulations, must be used for this purpose—the words Pilotman's Key returned herewith to be written on the Form; see specimen of altered Form on page 592 of this Book), a copy of which must be delivered by the Pilotman to every person who received a Pilot-working Form, such Form to be collected and cancelled by the Pilotman writing the word "Cancelled," and the time, date, and his signature across the face of it; when this is done and the Pilotman's Key has been restored to its normal position, the traffic will be again conducted in accordance with these Rules. All Forms which have been issued for Pilot-working, and copies of all telegrams sent in connection therewith, must be forwarded to the District Superintendent.

The Pilotman, when making his last trip under Pilot-working conditions, must notify all employes concerned along the Line that ordinary working will be resumed.

**AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.**

*(Specimen of Form altered as referred to in clause (a) of Rule 10.)*

**VICTORIAN RAILWAYS.**

**AUTOMATIC AND TRACK CONTROL SYSTEM OF TRAIN SIGNALLING ON SINGLE LINES.**

**WORKING OF SINGLE LINE BY PILOTMAN.**

(This Form must be filled up and used whenever it is temporarily necessary to work the Traffic by Pilotman.)

.....Station,  
.....19..

To.....

The Signalling Apparatus for the Section.....  
and.....having failed, all traffic between those two places will be worked by Pilotman in accordance with number 10 of the Rules for Working Single Lines of Railway by the Automatic and Track Control System of Train Signalling.

.....will act as Pilotman, and no train is to be allowed to pass on to the Section unless he is present and personally orders the Train to start.

This order is to remain in force until withdrawn by the Pilotman presenting my written authority.

(Signed).....

\*Noted by.....

Station or Box.

Time.....

\*Noted by.....

Station or Box.

Time.....

Noted by.....Pilotman.

\* These Signatures must only be made on the copy held by the Pilotman.

At least six of these forms must be kept in a convenient place at each Crossing Station, so as to be available at any moment night or day.

Before Pilot-working is commenced, a copy of this Form must be signed by the Signaller in charge of the Crossing Station at each end of the Section, and be kept by the Pilotman, who must see that each of the men signing the Form retains a copy for himself.

Station-masters receiving this Form will be held responsible that the Inspectors, Foremen, Signallers, and others concerned at their Station are immediately made acquainted with the circumstances, and are instructed in their necessary duties.

**AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.**

*(Form referred to in clause (f) of Rule 10.)*

**VICTORIAN RAILWAYS.  
WORKING OF SINGLE LINES BY PILOTMAN.**

**CANCELLATION ORDER.**

.....Station,  
.....19..

\*To.....

Pilot-working arrangements made by me at.....  
.....on.....  
19...for the Line between.....  
and.....are hereby cancelled,  
and ordinary working will be resumed.

The Pilotman's key is returned herewith.

(Signed).....

*\* Each Person who received a Pilot-working Form must also be handed a copy of this Order.*

NOTE.—Station-masters receiving this Form must notify the Inspectors, Foremen, Signalmen, and others concerned at their Station that ordinary working will be resumed.

**11. (a) Lighting of Signals.**— The Fixed Signals are lighted electrically or with long-burning oil lamps; for particulars of long-burning Semaphore Lamps see page 140. Trainmen should keep a good look-out to see that the lights of Up and Down Signals are showing properly, and in the event of any Signal light being dull, or from any cause not showing properly, the circumstances must be brought under the notice of the nearest Station-master.

(b) Should the light of an intermediate Signal or any Signal at an Unattended Crossing Station be extinguished, it will be the duty of the Guard to light the Signal lamp before his train passes the Signal, but if unable to light the Signal lamp the Driver and Guard must each place himself in a position in which he can clearly observe whether the Signal Arm is at the Stop or Warning or Proceed position. If the Signal be at the Warning or Proceed position, the Guard must remain in a position where he can watch the Signal Arm and signal to the Driver accordingly until the engine has passed the Signal, and the Signal Arm has assumed the Stop position. The Guard must then inform the Driver whether the indication displayed by the Signal was the Warning or Proceed indication, and the Driver must not go forward until the Guard has so informed him. In the case of a light of a Departure Signal

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

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at an Unattended Crossing Station being extinguished, the Driver must keep his train clear of the fouling point at the exit of the Station until signalled forward by the Guard.

**12. Train an Unusually Long Time in Section.**—When a train is an unusually long time in the Section, the Station-masters on both sides must confer with a view to ascertaining the cause, and agree as to the action to be taken; if the Telephone has failed the Station-master in advance of the train must take steps to ascertain the cause of the delay, and adopt the necessary measures for the safe conduct of traffic.

**13. Fouling a Section of the Single Line for Station Work.**—Except where Special Instructions are issued to the contrary, no train must be allowed to foul the Single Line outside the Home Signal protecting a Terminal or Attended Crossing Station, or outside the Automatic Arrival Signal at an Unattended Crossing Station, unless the Signal controlling the entrance of trains to the Single Line Section about to be fouled for Station work is at the Warning or Proceed Position.

**14. (a) Train or Portion of a Train Left on Single Line.**—When a train or portion of a train is left upon the Single Line from accident or inability of the engine to take the whole forward, the Driver must not return for the rear portion of his train except by written instructions from the Guard, as prescribed in Regulation 243.

(b) If, when returning for the rear portion of his train, the Driver has to pass a Signal-box, the Driver must inform the Signaller of the circumstances, and if the Driver be in possession of the written instructions from the Guard, he may be allowed to return to the rear portion of his train.

If, however, when returning for the rear portion of his train the Driver arrive at an Unattended Crossing Station, the written instructions received from the Guard will be sufficient authority for the Driver to pass the Stop Signal exhibited at the Signal controlling entrance to the Single Line section in the rear of that Station.

(c) The Guard, after securing the rear portion of his train, must protect it in the rear in accordance with Regulation 239.

(d) When two Guards are employed with the train, the front Guard (or where both Guards ride in the rear, the Under Guard) must, after securing the rear portion of the train, uncouple it, and ride upon the last vehicle of the front portion; the other Guard, after securing the rear portion, must go back and protect his train in accordance with Regulation 239.

(e) When there is only one Guard with the train, the Fireman must, after securing the rear portion of the train, uncouple where required, and ride upon the last vehicle of the front portion, and the Guard must take the necessary measures to protect the rear portion.

(f) After sunset, or in foggy weather, before the front portion is drawn forward, a Red Light must be placed on the front vehicle of the rear portion by the man who divides the train. As soon as the first portion has been drawn forward sufficiently far, either by day or night, the Under

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

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Guard or the Fireman must place two Detonators upon the Line about 200 yards from the front vehicle of the rear portion, to notify the Engine-driver when returning of the position of the remainder of his train.

15. (a) Should a train accompanied by the Pilotman become disabled, he must make the best arrangements for procuring assistance without delay.

(b) In the event of a train unaccompanied by the Pilotman becoming disabled, the Guard must protect his train as directed in Regulation 239, and communicate with the Pilotman as soon as possible.

(c) When a portion of a train is left upon a Section of the Line worked by Pilotman, from inability of the engine to take the whole forward, and the Pilotman is with the train, and accompanies the Driver with the first portion, the Driver (accompanied by the Pilotman) may return for the rear portion of his train without holding written instructions from the Guard; if, however, the Pilotman be not accompanying the train, the Driver must not return for the rear portion unless he holds written instructions from the Guard authorizing him to do so. In either case the Guard, after securing the rear portion, must protect his train in the rear as directed in Regulation 239.

16. **Section Obstructed by Accident or by Disabled Train.**—(a) If a train should become disabled between two Crossing Stations, the Driver must hand to his Fireman a written order, addressed to the Station-master at the nearest Station from which assistance can be obtained, stating the nature of the failure, the place where it has occurred, and authorising the Station-master to allow a Relief engine to proceed to remove the disabled train. The Station-master, on receiving the written order, must endorse it, arrange for the despatch of a Relief engine, and return the order to the Fireman, who must hand it to the Driver of the Relief engine, and accompany him to the place where he left the disabled train. The Driver of the Relief engine, after removing the whole of the disabled train to the end of the Section to which it was previously proceeding, must deliver up the written order to the Station-master.

(b) The Fireman, when proceeding to the nearest Station for assistance, must place Detonators on the Line as directed in Regulation 239, and the Guard must in every case protect his train in the opposite direction. Should the stoppage or failure occur to an engine not attached to a train, the Fireman, when proceeding for relief, must place Detonators on the Line as per Regulation 239, for the protection of the disabled engine, and the Driver, after securing his engine, must similarly protect in the opposite direction, and then return to his engine.

(c) The Driver of the disabled engine or train must not allow his engine or train to be moved until the Relief engine or train arrives, unless satisfactory arrangements have been made to prevent the Relief engine or train from coming to his assistance, and the man to whom the order was given has returned and handed the order back to the Driver.

(d) If when proceeding with the written order for a Relief engine, the Fireman arrive at an Unattended Crossing Station he must communicate from there by telephone with the Station-master to whom the written order

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

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is addressed; he must inform the Station-master of the particulars shown by the Driver on his written order, and, if the Single Line Section between these Stations be clear, the Station-master must on receipt of the particulars arrange to despatch the Relief engine informing the Driver of the Relief engine of the particulars communicated to him by the Fireman, and instructing him to stop at the Unattended Station for the Fireman.

(e) After communicating with the Station-master the Fireman must remain at the Unattended Station until the arrival of the Relief engine; he must then hand the written order to the Driver of the Relief engine and accompany him to the place where he left the disabled train.

**16A.** (a) If an accident or obstruction should occur, and the traffic is likely to be stopped for a considerable time, special arrangements must be made for the working of trains to and from the Crossing Station on each side of the point of obstruction.

(b) If the accident be caused by a landslip, flood, or similar cause, in the event of a train being in the Section, arrangements may be made for the train to be pushed back to the Station in the rear, but, before this is done, the Guard must return to the nearest Station in the rear and obtain permission in writing from the Station-master for the train to return to such Station. In the event of the Station being an Unattended Crossing Station, the Guard and Fireman must return to such Station and the Guard must hand the Fireman a written order authorising the Driver to push the train to that Station; the Fireman must then take the order to the Driver, and the Guard must remain in charge at the Station until the arrival of his train. In either case the Driver must not move in the wrong direction until he has received such written permission.

When the train is being pushed back to the Station, the Fireman must, if the Guard be not on the train, carry out the duties specified for the Guard, on pages 396-399.

(c) Should the obstruction be caused by a disabled train, the Guard must put the Driver in charge of the point of obstruction, and the Driver must give the Guard a written order addressed to the Station-master at the Crossing Station in the rear, stating the point of obstruction, and intimating that he will not allow the disabled engine or train to be moved until the Relief engine or train arrives. The Guard must then proceed to the Crossing Station in the rear and hand the order to the Station-master, advising him fully of what has occurred. The Station-master will then arrange to establish Pilot-working between the point of obstruction and the Crossing Station in the rear. When the Guard has proceeded to the Station in the rear the Driver of the disabled train must hand his Fireman a written order addressed to the Station-master at the Crossing Station in advance, stating the point of obstruction, and intimating that he will not allow the disabled engine or train to be moved until the Relief engine or train arrives. The Fireman must then proceed to the Crossing Station and hand the order to the Station-master, advising him fully of what has occurred. The Station-master will then arrange to establish Pilot-working, in accordance with clause (h), between the point of obstruction and the nearest Crossing Station in advance.



## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

(d) If, when proceeding with the written order for a Relief engine, the Guard or Fireman arrive at an Unattended Crossing Station, he must communicate from there by telephone to the Station-master to whom the written order is addressed; he must inform the Station-master of the particulars shown by the Driver on the written order, and if the Single Line between these Stations be clear, the Station-master must on receipt of the particulars arrange to despatch the Relief engine, informing the Driver of the particulars communicated to him by Guard or Fireman, and instructing him to stop at the Unattended Station for Guard or Fireman; before despatching the Relief engine the Station-master must arrange to place a man in charge of the Unattended Crossing Station, and appoint a Pilotman to work the traffic between that Station and the obstruction in accordance with clause (h).

After communicating with the Station-master, the Guard or Fireman must remain at the Unattended Station until the arrival of the Relief engine. He must then hand the written order to the Driver of the Relief engine, and accompany him to the place where he left his train.

(e) If, however, on arrival of the Guard or Fireman at the Unattended Station, a train be waiting or approaching from the opposite direction, the particulars shown on the written order must be communicated by telephone to the Station-master to whom the Order is addressed, and the Station-master must arrange for the train, which is at or approaching the Unattended Station, to proceed as a Relief train, accompanied by the Fireman or Guard, as laid down in Rule 16.

When, under these circumstances, the Relief train enters from the Station in advance the Driver must be accompanied by the Fireman of the disabled train, and he must instruct his own Fireman to remain in charge of the Unattended Station until the arrival of the Station-master; before leaving the Unattended Station, the Driver of the Relief engine must obtain a written order from the man left in charge of the Station, authorising him to return with his train to that Station from the point of obstruction. If under similar circumstances the Relief train enters from the Station in the rear, the Driver of such train must be accompanied by the Guard of the disabled train, and he must instruct his Fireman to remain in charge of the Unattended Station until the arrival of the Station-master; before leaving the Driver must, however, obtain a written order from the man left in charge of the Unattended Station, authorising him to return to that Station from the point of the obstruction.

After the Relief engine or train has entered the obstructed Section, the man left in charge of the Unattended Station must exhibit a Signal to prevent any engine or train from entering the Single Line until the Relief engine or train has arrived back with the written order.

(f) The Guard and Fireman of the disabled train when proceeding on foot to the rear and advance Stations respectively must place Detonators on the rail in accordance with Regulation 239, and must accompany the Relief train on their respective sides on each trip to and from the obstruction and the Unattended Crossing Station, until such time as the Station-master arrives, and Pilot-working has been instituted, when the Guard and Fireman will become responsible for the protection of the obstruction until

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

relieved; when returning with the Relief train from the obstruction, the train must be stopped and Detonators must be again placed on the rail by the Guard or Fireman, as the case may be.

(g) The Station-masters on each side of the obstruction must communicate with each other and, as soon as possible, arrange for a competent man to proceed to the Unattended Crossing Station and institute Pilot-working, in accordance with clause (h) hereof.

(h) The respective Station-masters must arrange for three or more, as may be necessary, of the printed Forms provided for the purpose of establishing working by Pilotman during obstruction (the Form *vide Rule 18, page 246 of the Book of Rules and Regulations must be used for this purpose, the necessary alterations being made with pen and ink, see specimen of altered Form at end of this Rule*) to be filled up; one of these, signed by the Pilotman, he must deliver, in the presence of the Pilotman, to the Signalman in charge of the Station where Pilot-working commences; the second must be retained by the Pilotman, and the third must be conveyed by the Pilotman with the Relief train, the Driver of which must hold the written order, to the Driver in charge of the point of obstruction.

Before despatching the Relief Engine, the Station-master must, in the presence of the Pilotman, withdraw the Pilotman's Key to secure at the Stop position the Signal that controls the entrance of trains to the Section on which Pilot-working is to be conducted; the key must be at once handed to the Pilotman, who must retain it in his possession until the Pilot-working arrangements have been withdrawn and ordinary working is to be resumed, when he must return it to the Station-master at its "Home Station," and the latter will be responsible for seeing that it is restored to its normal position in the lock, and that the necessary arrangements are made for renewing the glass cover.

(i) On arrival at the point of obstruction each Pilotman must collect and cancel the order held by the Driver of the Relief train, attach to it his—the Pilotman's—Form, and complete the arrangements for working by Pilotman.

(j) The Pilotman must wear a distinctive Badge, which, until the regular Badge can be obtained, must be a Red Flag tied around the left arm, above the elbow. So soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the Single Line under the control and by the permission of the Pilotman.

(k) Should the obstruction be caused by a Light Engine (or by any train worked by two men), a Relief train or engine must first be obtained from one end of the Section by the Fireman (or Guard), as laid down in Rule 16; and, if necessary, arrangements must be made for working the traffic in accordance with this Rule. The Driver must, after securing his engine or train, protect it in the opposite direction to which the Fireman (or Guard) proceeds for relief, and then return to his engine or train.

(l) When the Line is again clear, no train must be allowed to pass the point of obstruction unless both Pilotmen are accompanying it. After the Pilotmen have withdrawn their arrangements for Pilot-working, ordinary working may be resumed.

**AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.**

*(Specimen Form altered as referred to in sub-clause (h) of Rule 16A.)*

**VICTORIAN RAILWAYS.**

**AUTOMATIC AND TRACK CONTROL SYSTEM OF TRAIN SIGNALLING ON SINGLE LINES.**

**WORKING OF SINGLE LINE BY PILOTMAN DURING OBSTRUCTION.**

*This Form must be filled up and used whenever it is temporarily necessary, owing to obstruction on a Single Line, to work the traffic by Pilotman.*

.....Station.  
.....19..

To.....

The Single Line between.....and  
.....being obstructed, the traffic between  
.....and the place of obstruction will be  
worked by Pilotman in accordance with number 16A of the Rules for  
train Signalling on Single Lines of Railway worked under the Auto-  
matic and Track Control System of Train Signalling.

.....will act as Pilotman, and no train is to  
be allowed to pass on to the Section where the obstruction exists unless  
he is present and rides in the Operating Cab.

This order is to remain in force until withdrawn by the Pilotman.

[Signed].....

\*Noted by.....

Station or Box..... Time.....

\*Noted by.....

at place of obstruction. Time.....

Noted by.....

Pilotman.

\* These Signatures must only be made on the copy held by the Pilotman.

At least six of these Forms must be kept in a convenient place at each  
Station, so as to be available at any moment—night or day.

A copy of this Form must be delivered to the Signaller in charge of  
the Station where Pilot-working commences, the second must be retained by  
the Pilotman, and the third must be conveyed by the Pilotman with the Relief  
train to the Driver or other person in charge of the point of obstruction. If  
there is an intermediate Station, which is not a Crossing Station, the Signaller  
or person in charge must be supplied with a copy of the Form.

Station-masters receiving this Form will be held responsible that the  
Inspectors, Foremen, Signallers, and others concerned at their Stations, are  
immediately made acquainted, and are instructed in their necessary duties.

## AUTOMATIC AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

**17. Lever Locking and Track Control.**—On some Single Line Sections a system of Lever Locking and Track Control is in operation between Crossing Stations, and is described hereunder:—

(a) **Control of Fixed Signals.**—The Signals leading to the Single Line Sections are controlled through the Train Stops protecting the movement, also track controlled through the "Track Section," and through the "Control Lever" at the opposite end of the "Single Line Section."

(b) **Control Levers.**—A Control Lever is provided at each end of the "Single Line Section," and is locked in the "Normal" (back in frame), and "Normal indication" (special notch) positions, and cannot be moved from either position unless the full "Track Section" is unoccupied, and the opposing Home (Departure) Signal, and the "Train Stop" at the opposite end are at the stop position.

(c) **Light Indications.**—Indications are provided for the Control Lever and for the lever which operates the Home (Departure) Signal. These indications (white lights over the respective levers) function as follow:—

For the Control Lever—indicating that the Single Line Section and fouling sections are "Clear," and that all opposing Signals and "Train Stops" are at the "Stop" position.

For the Signal Lever—indicating that the controlling track sections are "Clear," and that the Control Lever at the opposite end is in the reverse position.

(d) **Emergency Time Release.**—As the Control Lever is interlocked with the levers operating the Points for opposing movements, a Time Release is provided for use during Pilot-working or at times when it is necessary to make emergency shunting moves.

The operation of the Time Release holds the Signals at each end of the Single Line Section at Danger until the Release is again reset.

(e) **Method of Despatching Trains.**—Assuming Stations to be "A" and "B," and the Train is Proceeding from "A" to "B."—The Signaller at "A" must ask on the electric bell for the Control Lever. The Signaller at "B," after acknowledging the ring, must place his Control Lever to the full reverse position. This operation will clear the Train Stop protecting the movement from "A," and permit the Signaller at "A" to place his Signal at the Proceed position. The train entering the Section will replace the Signal and Train Stop to the danger position, and back lock the Control Lever at "B" until clear of the fouling point at that station. The Signaller at "A" must, after the train has passed the Signal, replace the lever controlling the Signal to the normal position.

The same procedure to be adopted when despatching a train from "B" to "A."

**18. Automatic and Track Control Signalling on Single Lines is in force on the Lines or portion of Lines specified hereunder:—**

Line.	Locality.
Heidelberg Line—	Between Clifton Hill "B" and Westgarth; and between Alphington and Heidelberg; see pages 852-854.
Box Hill—	Between Camberwell and Riversdale; see pages 869-871.
Gembrook—	Between Upper Fern Tree Gully and Belgrave; see page 692.
Darling—	Between Heyington and Darling; see pages 865-867.

## Air Brake Orders.

### INSTRUCTIONS SUPPLEMENTARY TO THE WESTINGHOUSE AUTOMATIC AIR BRAKE RULES (APPENDIX III.) IN THE BOOK OF RULES AND REGULATIONS.

1. The Automatic Air Brake must be continuous throughout every train.

2. (a) The Air Brake should be capable of being applied to every vehicle of which the train is composed; but in every case where a vehicle is fitted with a pipe not operating brake blocks, or in the event of it being necessary to cut out the Air Brake on any vehicle (see Rule 33 of Appendix iii.) the Air Brake must still be capable of being applied to vehicles which represent at least—

90 per cent. of the total number of vehicles in the case of a  
**Passenger** or **Mixed** train, and



85 per cent. of the total number of vehicles in the case of a  
**Goods** train.

NOTE.—A Bogie vehicle of any description must be counted as two vehicles.

(b) On a Mixed or Goods train not more than three vehicles fitted with pipes not operating Brake Blocks must be together. When permission is granted (see clause 11, page 465) for the conveyance by a Mixed train of a consignment of long timber, girders, or any other kind of loading that requires one or more safety "K" trucks, or when any such consignment is forwarded by a Goods train, at least one of the trucks so used must be fitted with the Air Brake.

(c) TRUCKS FITTED WITH PIPES NOT OPERATING BRAKE BLOCKS.—Unless special instructions are issued to the contrary, trucks fitted with pipes not operating Brake Blocks must not be allowed to run between Everton and Yackandandah, Tallangatta and Cudgewa, Stawell and Grampians, Cathkin and Alexandra, Triholm and Strezlecki, Neerim South and Noojee, or Merricks and Red Hill. Such trucks must not be loaded for the Lines mentioned.

(d) Trucks fitted with the Air Brake Apparatus are marked

thus—  and trucks fitted with pipes not operating Brake blocks thus— 

3. **Marshalling Goods Trains.**—In marshalling a Goods train composed of loaded and empty vehicles, it is desirable that the loaded vehicles be placed at the engine end of the train, and that as near as practicable to 50 per cent. of the tonnage should be placed in the forward portion of the train; but the instructions with regard to the marshalling

## AIR BRAKE ORDERS.

of trains (see pages 406-411) or any instruction in regard to the marshalling order of vehicles containing loading of an exceptional character, must not, however, be departed from.

**4. Examination and Testing of Air Brake on any train other than a Passenger train prior to starting the journey.**—(a) The minimum time allowed for examining any train other than a Passenger train, and for testing the Air Brake on any such train, is as under:—

No. of Vehicles on Train.	Time to be allowed for examination after engine is coupled to train with—	
	One Train Examiner.	Two Train Examiners.
Up to 20 vehicles ...	15 minutes	10 minutes
" 30 " ...	20 "	14 "
" 40 " ...	25 "	18 "
" 50 " ...	30 "	22 "
" 60 " ...	35 "	26 "
" 75 " ...	45 "	32 "

(b) When the Air Brake is tested, the air pressure in the gauge on the engine must be at least 40 lbs. If the condition of the Air Pump or of the Brake Apparatus is such that a pressure of 40 lbs. cannot be obtained, then the load of the train must be reduced to such an extent as to permit of a pressure of 40 lbs. being obtained; where the load of a train is reduced for this reason, the Guard must make a note to that effect on his Train Waybill and Statement of Running.

(c) At Melbourne all outwards trucks must be loaded and have the Waybills or Tonnage Cards attached 90 minutes before the train by which the trucks are to be forwarded, is due to depart.

At Country Depots all outwards trucks must be ready at such a time as may be determined by the Metropolitan or District Superintendent, as the case may be, but sufficiently early to permit of the Air Brake being tested, as provided in sub-clause (a). Train engines must be out in sufficient time to allow of this being done.

(d) In the Melbourne Yard, where there is a ground air service, or at any Depot where one or more shunting engines are employed, the ground air service or a shunting engine must, in the event of the train engine not being available in time, be used for testing the Air Brake, provided that in the case of the shunting engine the yard work would not be unduly interfered with thereby. In every case, however, the Air Brake must be afterwards tested by being applied and released with the train engine and the brakes must be observed to apply and release on the leading vehicles of the train, and the Guard must make the Van test of the continuity of the train line in accordance with Brake Rule 23, page 269, Book of Rules and Regulations.

If the train will be run by two engines, the first engine to be coupled to train may be used for testing the brake, but it must afterwards be tested before the train departs, by being applied and released with the leading

## AIR BRAKE ORDERS.

engine, and the brakes must be observed to apply and release on the leading vehicles of the train, and the Guard must make the Van test of the continuity of the train line in accordance with Brake Rule 23, page 269, Book of Rules and Regulations.

(e) In order to permit of the Train Examiner testing the Air Brake as soon as possible, the Guard must promptly couple up his train so that air may be passed through immediately the engine is available. Shunters making up a train should see that trucks are placed together so that, as far as practicable, the Guard may couple up before the engine is attached.

The attention of Train-examiners is directed to the precautions prescribed for their protection when examining or testing the Air Brake whilst an engine is coupled to the train. See page 393.

**5. Shunting at a Station on or close to a Gradient.**—At a Station situate on or close to a gradient the Station-master must see that every care is taken during shunting operations. Vehicles detached from the train must not be left unless they are properly secured. See Instructions, "Shunting Vehicles at Incline Stations," pages 441-442.

**6. Regulation 204.—Air Brake not to be relied upon to secure any train or vehicle from which the engine has been detached.**—(a) When a train has been brought to a stand on a Running Line, where the Line is not level, and it is necessary for the engine or any portion of the train to be detached, a sufficient number of Hand Brakes must be first put on securely to prevent the possibility of the train or vehicles moving away. On heavy gradients (1 in 50 or steeper) every available Hand Brake must be applied and where necessary Sprags must be used. For instructions in respect of supply of Sprags, see page 357.

(b) The Air Brake must not be relied upon to secure any train from which the engine has been detached, or any portion of a train, whether standing on a Running Line or in a Siding. The number of Hand Brakes to be applied will depend upon the steepness of the gradient, the number and class of the vehicles, their loads, and the state of the weather and the rails.

(c) In the case of Electric Trains, on arrival at a Terminal or other Station at which the Trainmen change ends, the Guard must fully apply his Van Brake; the Motorman must fully apply the Air Brake by means of the Driver's Brake Valve, closing the Isolating Cock of the Driver's Brake Valve, and release all Brakes from the other end before attempting to start.

**7. Working of trains down gradients.**—(a) The Driver and Guard will be responsible for having their train under proper control and for working it safely down gradients. The Driver must test the Air Brake before descending a steep gradient, and if, when the test is made, he is of opinion that he cannot maintain a sufficient air pressure in the Train-pipe, or that otherwise the Brake-power is not adequate to control the train down the gradient, the speed must be reduced and, if necessary, the train must be brought to a stand and a sufficient number of Hand Brakes applied, so that the speed may be properly controlled and the train stopped where required.

## AIR BRAKE ORDERS.

See Special Instructions in respect of the Application of Hand Brakes when descending on gradients in sections specified hereunder:—

Lines.	Sections.	Special Instructions.
Northern .. ..	Woodend-Sunbury	page 730
North-Eastern ..	Beechworth-Everton	" 807
	Beechworth-Yackandandah	" 807
	Shelley-Tallangatta	" 807
	Shelley-Cudgewa	" 808
Eastern .. ..	Nayook-Noojee	" 815
	Neerim South-Neerim	" 815
South-Eastern ..	Strezlecki-Triholm	" 822

(b) The duty of applying the Hand Brakes to the number specified by the Driver, and of releasing them again at the place where the Driver elects to have this done, must be jointly performed by the Fireman and the Guard.

(c) The Hand Brakes should only be applied on vehicles on which the Air Brake is not in operation; if, however, the number of these be insufficient, the Hand Brake must also be applied on as many vehicles (including those fitted with the Air Brake Apparatus) as may be necessary.

(d) Hand Brake levers, when pressed down, must be secured by pin or ratchet, and with heavily laden vehicles as much pressure as possible should be applied; but care must be taken to see that the Hand Brakes (especially those of the screw type) are not fastened so securely as to prevent the wheels revolving.

(e) When a train is stopped for the purpose of applying or releasing Hand Brakes, as laid down in this clause, it will not be necessary, except in the case of unusual delay, for the Guard to go back and protect his train.

### 8. Testing the Air Brake prior to Stopping, Rule 12, Appendix III.—

(a) In addition to Terminal Stations where trains run into platform roads which terminate in dead-ends, the following Stations are to be regarded as Terminal Stations, and as coming within the application of Rule 12, of Appendix iii., for Brake Testing purposes:—

Flinders Street	Hawthorn (Up Kew	Brighton Beach
Spencer Street (all trains)	trains)	(Down Local trains)
Mordialloc	Box Hill (Down trains)	Tallaroek
Frankston (Down trains)	Ringwood	Seymour
Caulfield	Port Melbourne	Mangalore
Dandenong	Williamstown	Bendigo
Burnley (Up Glen Iris	Coburg	Ballarat
trains)	Reservoir	Geelong



## AIR BRAKE ORDERS.

(b) At a Staff Station which is not equipped with Fixed Signals, or where a "Test Brake" Board is not provided, the Air Brake must be tested for any such Station which is approached by a falling gradient, at the top of the gradient, and for a Station which is not approached by a falling gradient, the test must be made at a distance of at least half a mile before reaching the Station.

(c) Drivers and Guards of Trains when approaching the Stations specified hereunder must clearly understand that where a Signal is exhibited at the Distant Signal to give them permission to enter such Signal simply gives permission to run into, but not through, the Station; and they must therefore be prepared to stop at the Station unless the Signals applicable to the Line on which they are running are exhibited, giving them permission to leave the Station at the other end:—

Ararat	Clifton Hill	Oakleigh
Ballarat	Dandenong	Seymour
Benalla	Geelong	Stawell
Bendigo	Korong Vale	Wodonga
Caulfield	Maryborough	

**9. Failure of any part of the Automatic Air Brake.**—(a) If there be any failure of any part of the Brake Apparatus during the journey, such as would interfere with the proper control of the train, the Driver must bring the train to a stand with as little delay as possible, and if, in order to do this, he require the special assistance of the Guard's Brake, he must give a succession of short sharp whistles, and the Guard or Guards must immediately apply the Brakes.

(b) If it be seen, when the train is brought to a stand, that the failure cannot be at once remedied, but that the Air Brake may be still operated on a portion of the train (although its continuity may be broken, or by cutting out the Air Brake on one or more vehicles, it may be still continuous), the Driver may take the train on to the next convenient Station or to its destination, even though the Air Brake cannot be applied on the required percentage of the total load (see clause 2), but, in so doing, he must take great care to regulate the speed of his train in accordance with the Brake power available when approaching any Station, Junction, or falling gradient, and in every such case the Guard must always apply the Van Brake as soon as he becomes aware that the Driver is applying his.

(c) To reduce delay, the Driver should, if necessary, hand the Station-master at some outer Station a message for transmission to the nearest Train-examiner, in order that the latter may meet, or be available on arrival of, the train at the examining Station.

(d) If with a reduced rate of speed the Driver be not satisfied that the Brake power available is sufficient to properly control the train, the load must be reduced to what can be safely controlled, and, if the failure be due to a defective vehicle, it must be detached or otherwise attended to at the first convenient Station.

(e) See also instructions (pages 487-492) in respect of the working of an Electric Train when braked from other than the leading cab.

## AIR BRAKE ORDERS.

**10. Air Brake wholly inoperative.**--(a) If there be any failure such as would render the Air Brake wholly inoperative, the load of the train down any gradient must be limited to what the engine is capable of hauling up a corresponding gradient without the aid of momentum.

(b) On long falling gradients, and when approaching any Station or Junction, the train must be kept well under control, and the speed must not exceed a rate of **15 miles per hour**. If this cannot be done without relying on the Hand Brakes on the engine and tender, the train must be brought to a stand and a sufficient number of Hand Brakes applied to enable the train to be properly controlled.

(c) The number of Hand Brakes to be applied will depend upon the steepness of the gradient, the number and class of vehicles, their loads, and the state of the weather and the rails. The Hand-brake power to be applied can be estimated from the following table:—

**TONNAGE ALLOWED PER EFFECTIVE HAND BRAKE APPLIED.**

For Grades of	TRUCKS.		VANS.		
	Fixed Wheel Base.	Bogie.	Fixed Wheel Base.	4-wheeled Bogie.	6-wheeled Bogie.
	Lever Brake.	Screw Brake.	Screw.	Screw.	Screw.
1 in 30	10 tons	60 tons	30 tons	80 tons	100 tons.
1 in 40	12 "	80 "	40 "	100 "	130 "
1 in 50	16 "	100 "	50 "	130 "	160 "
1 in 60	20 "	120 "	60 "	160 "	190 "
1 in 70	24 "	140 "	70 "	190 "	230 "
1 in 80	28 "	160 "	80 "	220 "	270 "
1 in 90	32 "	180 "	90 "	250 "	310 "
1 in 100	36 "	200 "	100 "	280 "	350 "

(d) In addition to those laid down in the foregoing sections of this clause being carried out, the following instructions must be observed:—

**IN THE CASE OF A PASSENGER TRAIN:—**

- (i.) The train may proceed slowly and cautiously to the next convenient Station or to its destination, provided that the Hand-brake power available (exclusive of that on the engine and tender) is sufficient for the train to be properly controlled down the steepest gradient on any section of the Line over which it will require to proceed, and to permit of its being stopped, if necessary, on any part of such gradient, with the assistance of the Hand Brake on the engine and tender. The train should not proceed beyond the first convenient Station unless it be there found that the defect can neither be remedied nor other satisfactory arrangements made.

## AIR BRAKE ORDERS.

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- (ii.) If the Driver be not satisfied that the Hand-brake power available is sufficient to properly control the train, the load must be reduced to what the Hand-brake power available can properly control. (See foregoing table.)
- (iii.) Should there be a second Guard's Van on the train, or some other vehicle fitted with a screw Hand Brake, an Assistant Guard or other competent employe (if one be available) must ride in it, and work the Hand Brake in accordance with the directions of the Guard in charge of the train.
- (iv.) Before descending any steep gradient or any gradient approaching a Station or Junction, the speed of the train must be reduced to a rate not exceeding 15 miles per hour, and the Driver must indicate to the Guard by means of the whistle code (a succession of short sharp whistles) that he requires the special assistance of the Guard's Brake, and if he have reason to think that such assistance is not being rendered, then he must bring the train to a stand and ascertain the cause.
- (v.) The Guard must closely watch the speed of the train, and immediately apply his Van Brake as soon as he becomes aware that the Driver is applying his, or as soon as the Driver indicates by the engine whistle that the assistance of the Guard's Brake is required.

### IN THE CASE OF A MIXED OR GOODS TRAIN:—

- (vi.) The train may proceed slowly to the next convenient Station, or to its destination, provided the load be not in excess of what the Hand-brake power on the train (exclusive of that on the engine and tender) can properly control (see foregoing Table).
- (vii.) When approaching any falling gradient of 1 in 80 or steeper, the train must be brought to a stand before it reaches the spot where the gradient commences to fall, and, before starting, the Fireman must apply securely a few Hand Brakes on the vehicles near the engine; the train may then be started cautiously and drawn slowly on to the falling gradient, and as it is being thus drawn, the Guard must continue applying Brakes until the whole of the vehicles are on the gradient. When the Driver feels by the movement and weight of the train that enough Brake-power has been applied, he must give three long whistles to indicate to the Guard that sufficient Brake-power is in operation.
- (viii.) The Hand Brakes of the engine and tender should be off when the train commences to descend the gradient, so that they may be held in reserve and ready for use either to steady the train or to stop it on any part of the gradient should it be necessary to do so.

## AIR BRAKE ORDERS.

- (ix.) If the train be scheduled as a Mixed train, and there are no Goods vehicles attached, it must be dealt with in the same way as a Passenger train.

**11.** In any case where two engines are employed to haul a train, the engine with the larger Air Pump should, as far as is reasonably practicable, be the leading engine.

If, however, the Driver of the engine which has the smaller pump has any doubt as to his ability to maintain a sufficient air pressure, the engine with the larger pump must, unless one of the engines be running tender first, be the leading engine.

**12. Hand Brakes to be Tested.**—(a) On a train which is not controlled by the Air Brake, the Driver and Guard must, before commencing the journey, test the Hand Brake of every Goods vehicle on the train, and the Guard must also test the Hand Brake of every Goods vehicle attached on the journey. If the Hand Brake on any vehicle be defective it must not be taken on, unless there is sufficient Hand-brake power on other vehicles to enable the train to be properly controlled.

(b) The Guard must also test his Van Brake, and see that it is in proper working order.

**13. Pressure Gauges and Brake Cocks in Vans, Etc.**—(a) As the Gauge on the engine does not, when the Air Brake is tested, indicate whether the Brake is connected throughout the train, it is imperative that the Rear Guard, in making the test, should in every case see that the pressure in the Gauge in his Van rises again on the cock being shut; no test can be considered complete unless this is done.

(b) If necessity should arise for the Guard, or Shunter, to stop the train by means of the Air Brake in the Van, he must open the Train-pipe Cock and allow the air to escape until the train has been brought to a stand, and the Train-pipe Cock must be kept open until he has communicated by Hand Signal or other means with the Driver. If in any such case the Guard should have occasion to leave his Van, he must before leaving, screw the Van Hand Brake hard "On."

If the train be at a Station or Signal-box, and protected by the Fixed Signals, or if on a Single Line and the Driver is in possession of the Train Staff or Tablet for the Section, the Guard must, if necessary, communicate with the Driver; but if the train be not protected by Fixed Signals, and the Driver is not in possession of the Staff or Tablet, he or his Assistant must communicate with the Guard, and ascertain the cause of the stoppage.

- (i.) **AIR BRAKE COCKS ON PARLOR CARS.**—The Train-pipes at the rear end of Parlor Cars "Murray" and "Yarra" are extended and carried up the railing of the Observation Platform, and a Brake cock connected with the Train-pipe is

## AIR BRAKE ORDERS.

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fixed near the Hand Brake to enable the authorised employe to apply the Air Brake from the Observation Platform should circumstances require it.

The Brake Cock and Pressure Gauge in the Conductor's compartment must be used when necessary to test the Brake as prescribed in Rule 23, Appendix iii.; when, however, the train is being pushed and the car is the leading vehicle, the employe whose duty it becomes to signal to the Driver must ride on the Observation Platform.

- (ii.) **AIR BRAKE COCKS IN VESTIBULES OF DINING CARS.**—Brake Cocks are fitted in the vestibule at each end of the "Wim-mera," "Campaspe," and "Goulburn" Dining Cars.
- (iii.) An Air Brake Cock is fitted on certain passenger Cars now on Electric trains; the Cock is situated so as to enable the Shunter to operate it whilst riding on the footboard when shunting. Guards and Shunters must ascertain the position of this Air Cock before the Shunting movement is commenced.

**14. Train-Pipe Cock Handles.**—(a) The Train-pipe of every vehicle is fitted with a cock at each end; these cocks should be open when the hose pipes are connected. the cock at the rear of the train being always closed. When vehicles are being coupled the cocks must not be opened until after the hose pipes have been connected; and when vehicles are being uncoupled the cocks must be closed before separating the hose pipes.

(b) In the case of Electric Trains there are two separate Air-pipes (both equipped with hose pipes) running throughout the train, viz. :—(i.) The ordinary Train-pipe, and (ii.) the Main Reservoir Pipe Line for connecting up the Main Reservoirs on the trains: every Motor Car has a Main Reservoir fitted to its underframe.

(c) Delay and inconvenience may be caused by persons tampering with the cocks of the Air Brake. Station-masters and others in charge must give this matter particular attention and see that each member of the Staff properly understands when and how to open and close these cocks, and that no persons, except those properly authorised, are allowed to interfere in any way with the cocks or fittings of the Air Brake.

Whenever a Goods or Live Stock train is stopped for the purpose of inspecting the loading or Stock, the Guard is specially enjoined not only to see that, during such inspection, no Train-pipe cock handle is inadvertently altered in position, but also that the continuity of the Air Brake is not interfered with.

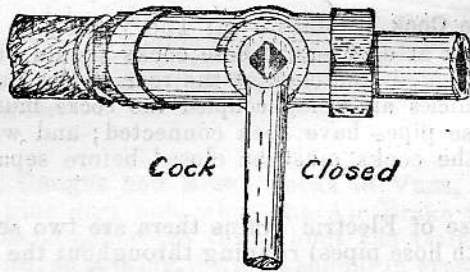
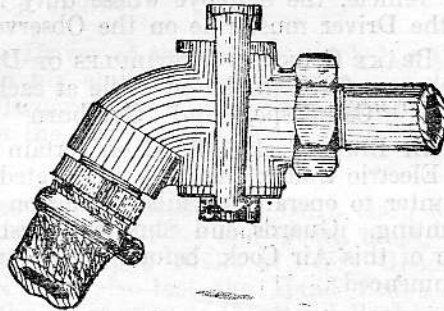
(d) Until such time as the standardisation of the Air Brake stand pipes and cocks, which is now in progress, is completed, some of the handles of the Train-pipe cocks will point across the pipe when in the open position, and in line with the pipe when closed. Should any doubt exist as to the proper position for any cock, this can be determined by the position of the cut on the head of the plug handle; the cut in every case lies along the pipe when open, and across it when closed.

AIR BRAKE ORDERS.

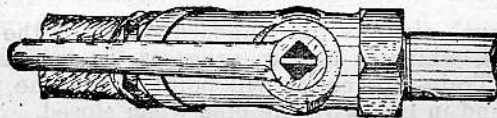
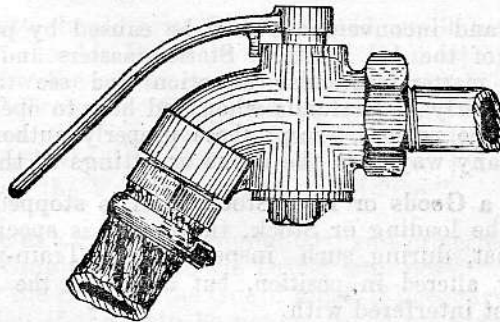
(e) Until the position of all the cocks is made uniform, the following diagrams show the open and closed positions of the respective cocks:—

BENT COUPLING COCK

(STANDARD).



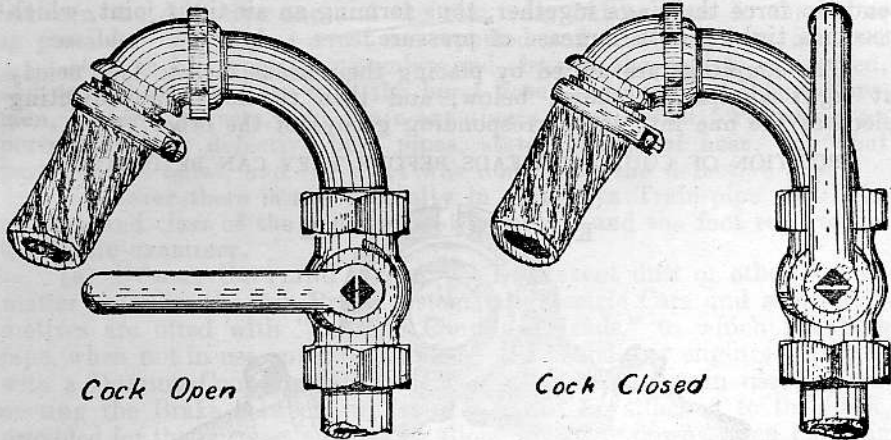
Cock Closed



Cock Open

STRAIGHT COUPLING COCK

(AS FITTED TO VEHICLES HAVING STAND PIPES).

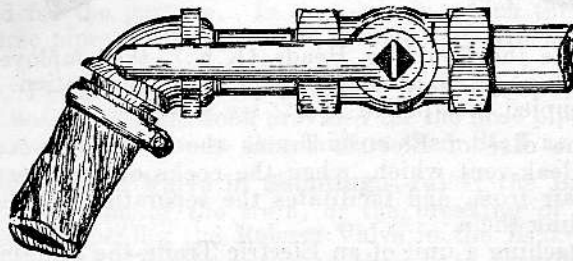


*Cock Open*

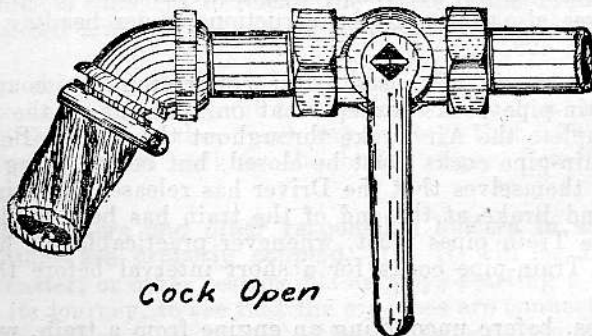
*Cock Closed*

STRAIGHT COUPLING COCK

(AS FITTED TO VEHICLES HAVING STRAIGHT PIPES).



*Cock Closed*



*Cock Open*

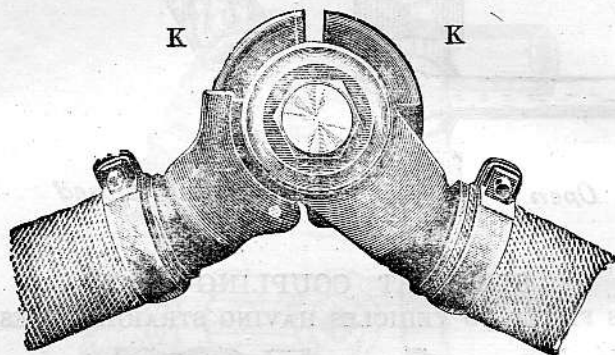
**15. Hose Pipes.**—(a) Air-tight connections of the Train-pipes are made between the vehicles by flexible rubber hose pipes, attached to the Train-pipes, and fitted with metallic Coupling Heads (K.K.), constructed so as to be readily coupled or uncoupled.

## AIR BRAKE ORDERS.

The two Coupling Heads are exactly alike, each being provided with a rubber packing ring, so arranged that when the Couplings are united, these rings face against each other; the air pressure in the Train-pipe tends to force the rings together, thus forming an air-tight joint, which becomes tighter with increase of pressure.

The couplings are united by placing their heads face to face nearly at right angles, as shown below, and then turning the projecting piece of the one into the corresponding groove of the other.

## POSITION OF COUPLING HEADS BEFORE THEY CAN BE UNITED.



To separate the Coupling Heads (K.K.), the employe uncoupling must raise the hose pipes, as shown in the above illustration. Hose Pipes must be uncoupled, not pulled apart; see sub-clause (c).

(b) In the case of Electric Trains the Train-pipe cocks are provided with a leak-vent which, when the cocks of the pipes are closed, exhausts the air from, and facilitates the separation of, the hose pipes when uncoupling them.

When attaching a unit of an Electric Train, the Shunter must, after the two portions of the train are together, at once open the Train-pipe on the added portion, and leave it open; he must not, however, open the Train-pipe Cock on the service portion until all other coupling has been completed; see also clause 2 of Instructions under heading of Coupling Vehicles, page 428.

(c) Shunters, in all cases, after connecting the couplings, must open all Train-pipe cocks, except that on the rear of the last vehicle, so as to complete the Air Brake throughout the train. Before uncoupling, the Train-pipe cocks must be closed, but before doing so Shunters must satisfy themselves that the Driver has released the Air Brake, and that the Hand Brake at the end of the train has been applied. Before coupling, the Train pipes must, whenever practicable, be blown out by opening the Train-pipe cocks for a short interval before the couplings are united.

Employes, before uncoupling an engine from a train, must see that the cock on the end of the vehicle next to the engine is closed, and signal to the Driver to apply the Air Brake fully on the engine in order to exhaust the air from the hose-pipes; the cock on the Train-pipe of the engine must then be closed, and the couplings separated.



## AIR BRAKE ORDERS.

(d) If a hose pipe become defective during a journey, it should be at once replaced, and if no other hose pipe is available one may be taken from the rear end of the rear van or, failing that, from a vehicle between the defective one and the rear van, but as near to the latter as possible. The defect must be reported and the Guard or Shunter must state in his report the number and class of the vehicle concerned, and say what was done with the burst hose. Locomotive Depot Foremen, Fitters, Drivers, and Train-examiners must, when forwarding reports regarding defective hose pipes, state (1) size of hose, (2) what part of hose burst, and (3) what was done with the defective hose.

Whenever there is any difficulty in turning a Train-pipe cock, the number and class of the vehicle must be noted, and the fact reported to the Train-examiner.

(e) **DUMMY COUPLING HEADS.** — To prevent dust or other foreign matter entering the Air Brake system, all Electric Cars and some locomotives are fitted with "Dummy Coupling Heads," to which the hose pipe, when not in use, must be coupled. On vehicles or engines not fitted with a Dummy Coupling Head the hose pipe, when not in use for connecting the Brake between two vehicles, must be attached to the hook, provided for the purpose, and not be allowed to hang down; when hanging down it is liable to strike the rails at crossings.

Employes engaged in shunting Narrow Gauge Rolling Stock must see that the hose pipes, when not actually in use, are secured by the hook provided for the purpose. In any case in which the hook cannot be used the hose pipes must be secured so that they will be well clear of the rails.

Shunters, Porters and others crossing over the buffers between vehicles must not step on the hook provided for the hose pipes, nor on the air pipe. Station-masters must also caution their Staff as to this.

**16. Use of Release Valve in Shunting.**—(a) If the Brakes are applied by the separation of the train, or the breaking of a pipe, they can be released by opening the Release Valve in the Brake cylinder, or pipes leading thereto. Employes, when they have occasion to use the Release Valve on any vehicle, must not bend the wire to keep the Valve open. The Release Valve must be operated solely by hand; a short pull for a few seconds is sufficient to release the Brake if the Train-pipe cocks are properly closed and the pressure is retained in the Train-pipe when uncoupling.

(b) When shunting carriages into Sidings employes must not rely on the Air Brake, but must shunt the vehicles in such a manner as to be able to stop them before they reach any carriage that may be standing on the Sidings or before striking the buffer stops. See "Braking of Vehicles," page 440.

**17. Station-masters and other responsible officers to see that Air Brake connections are properly coupled.**—(a) It will be the duty of each Station-master, or other responsible employe starting a train where it commences its journey, to see that the air-pipes are connected between each vehicle, as well as to see that the train is properly coupled in every other respect.

(b) Performance of this duty by the Station-master or other responsible employe will not in any way relieve the Guard of responsibility for seeing that every coupling is properly connected.

## AIR BRAKE ORDERS.

**BRAKE SLACK ADJUSTER.**

The following instructions must be observed by employes of the Rolling Stock Branch in connection with the Examination, Maintenance, and Working of the Brake Slack Adjuster:—

1. Every Slack Adjuster must be thoroughly examined, cleaned and oiled every six (6) months by a Fitter or Train-Examiner, such examination to be recorded in the usual manner.

2. Any employe who observes a Brake Slack Adjuster out of order must at once attach a properly marked Brake Defect Card to the vehicle in a conspicuous position, and forward the duplicate part of the Air Brake Defect Card to his Foreman.

3. Any employe who examines a vehicle which is fitted with a Brake Slack Adjuster and a Hand Brake **must not rely on the Slack Adjuster for the proper adjustment of the Hand Brake**, but must specially examine, test, and, if necessary, adjust the Hand Brakes.

4. Whenever a vehicle is blocked, the  $\frac{3}{4}$ in. gas plug must be taken out and the Slack Adjuster oiled, but in any case this oiling must be done at least once every month.

5. (a) Before proceeding to re-block a vehicle fitted with inside brake blocks, the pawls must be thrown back and the ratchet screwed up as far as it will go; and before proceeding to re-block a vehicle fitted with outside brake blocks, the pawls must be thrown back and the ratchet unscrewed until the thread appears.

(b) After the blocking has been completed, the Slack Adjuster must be screwed up or unscrewed, as the case may be, till the brake blocks are hard against the wheels, then the ratchet should be eased back two full turns in the case of single blocked car, and six full turns in the case of a double blocked car, and the pawls replaced in position.

6. When adjusting a Slack Adjuster on any vehicle special care must be taken to see that the rod is screwed up two inches (2in.), i.e., at least sixteen (16) complete turns, into the ratchet nut.

7. (a) If the brake on any vehicle which is fitted with a Slack Adjuster be found rubbing, or if it be taken up too tightly and it cannot be released from the engine, the Slack Adjuster must be attended to. To do this, the pawls must first be thrown back and the ratchet or sleeve nut screwed up or unscrewed two (2) full turns, as may be required, **and the pawls left out of position.** If the pawls cannot be moved the Driver must apply the Air Brake, after which they can be thrown back and the air then released from the Brake Cylinder by hand.

(b) In every such case the employe must attach a Brake Defect Card, specially report the matter to his Foreman, and, as well, forward the usual Duplicate part of the Air Brake Defect Card.

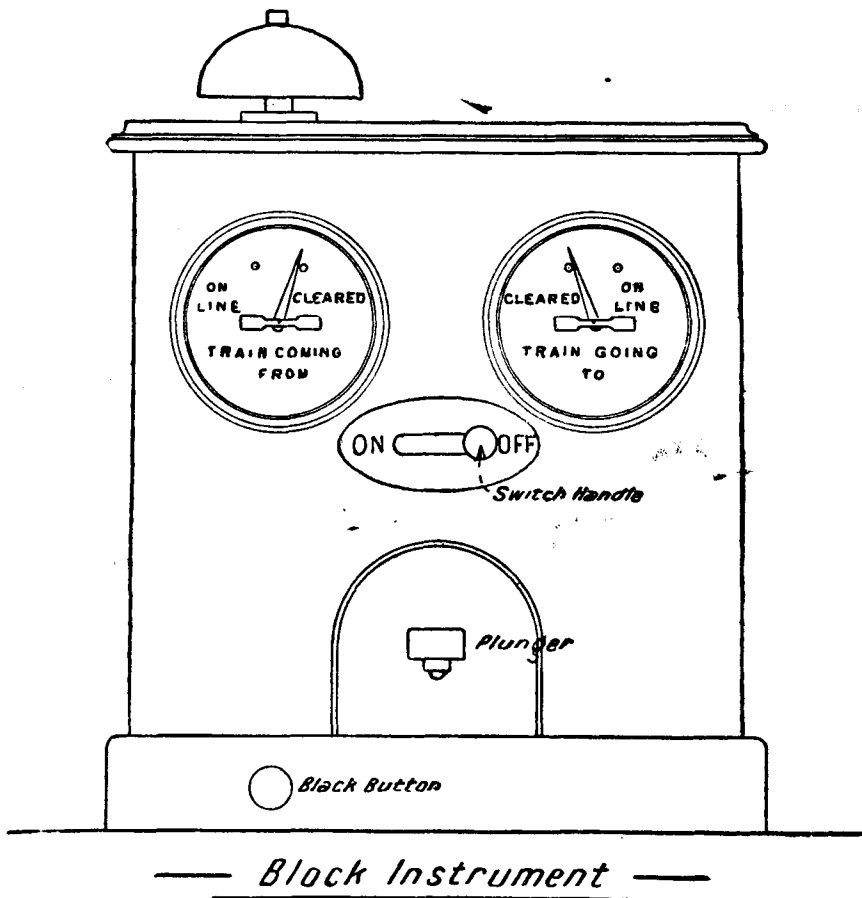
8. If a broken screw, body, or ratchet cannot be attended to at once, the Air Brake must be cut out and all parts that are liable to fall down must be removed or carefully secured, and the usual notice given to all concerned.

9. Brake Slack Adjusters on Express, Country Passenger, and Suburban Passenger trains must be adjusted to suit a train line pressure of 75 lbs.

## Block Working Instructions.

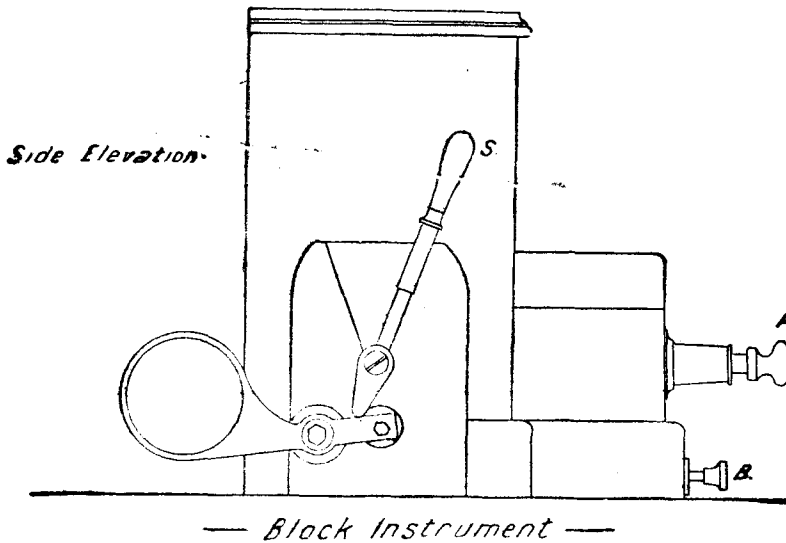
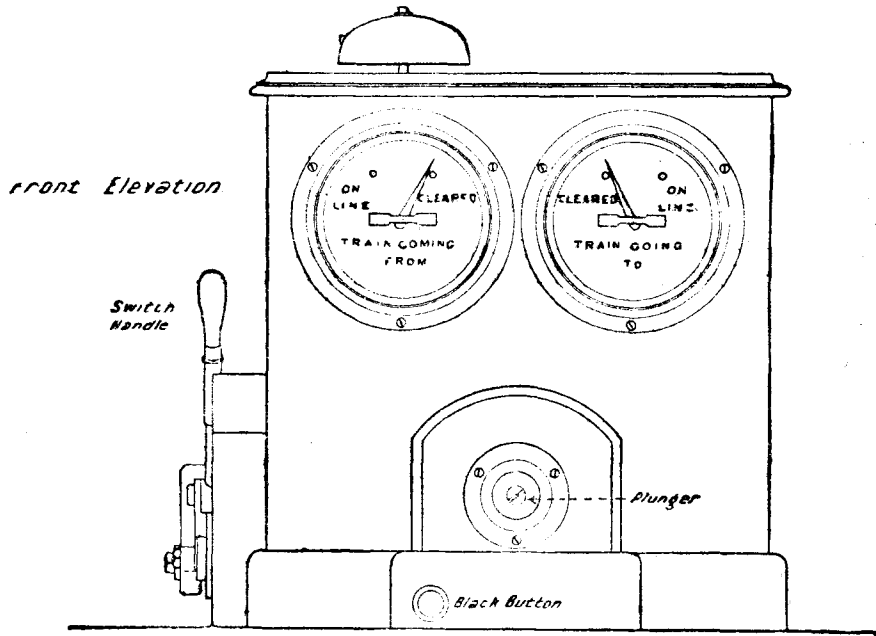
### TRAIN SIGNALLING INSTRUMENTS.

The following diagrams illustrate the various kinds of Train Signaling Instruments in use, Tablet Instruments excepted:—

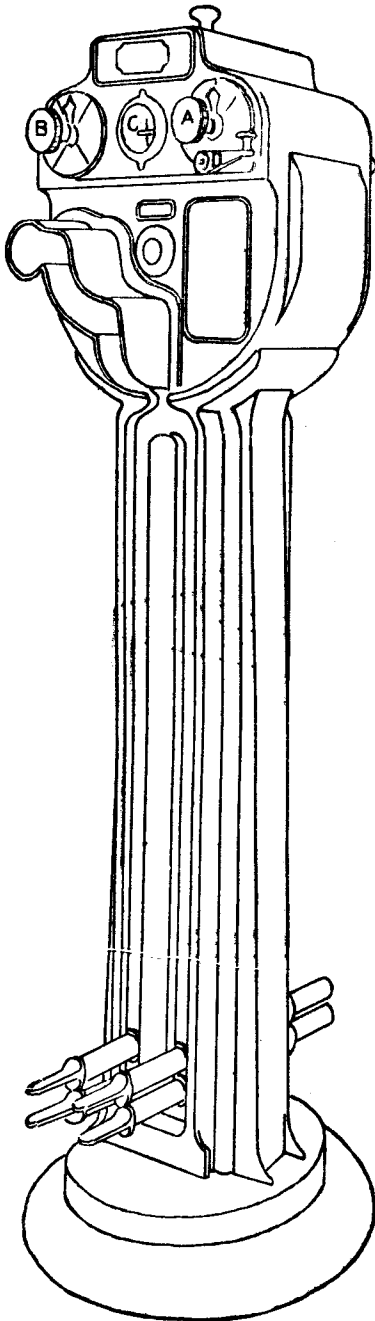


Note.—This type of Block Instrument has the switch handle in the front. A description of the Instrument appears in the Book of Rules and Regulations. See Appendix iv. in that Book for Double Line Block Telegraph Working, and Appendix vi. for Single Line Block Telegraph Working.

## BLOCK WORKING INSTRUCTIONS.



Note.—This type of Block Instrument has the switch handle at the side. A description of the Instrument appears in the Book of Rules and Regulations. See Appendix iv. in that Book for Double Line Block Telegraph Working, and Appendix vi. for Single Line Block Telegraph Working.



**ORDINARY ELECTRIC STAFF  
INSTRUMENT.**

EXPLANATORY NOTE:—

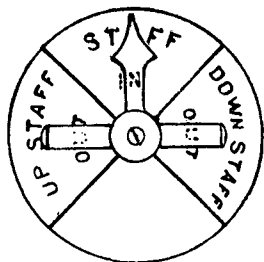
- A. Right-hand Indicator.
- B. Left-hand Indicator.
- C. Galvanometer Needle.
- D. Bell Key.

The mode of Signalling on this type of Instrument is as set out in Appendix vii., Book of Rules and Regulations.

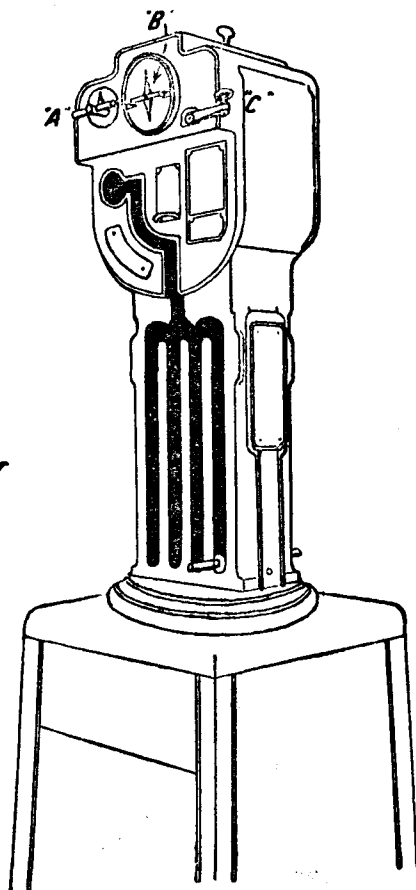
The Right-hand Indicator works a switching apparatus which switches the current from the Bell to the Staff Instrument, and when the Indicator points to "For Staff" the Bell Instrument is cut out.

On some of these Staff Instruments the Switching Apparatus is automatically worked in the process of withdrawing the Staff from the Instrument, and in such cases the handle A, or the Right-hand Indicator, is not provided.

## BLOCK WORKING INSTRUCTIONS.



*Enlarged view of Indicator*



*Miniature Electric Staff Instrument.*

Explanatory Notes:—

- A. Indicator,
- B. Galvanometer Needle,
- C. Bell Key.

The mode of signalling on the Miniature Electric Staff Instrument is the same as for the ordinary Electric Staff Instrument (see Appendix vii., Book of Rules and Regulations), except that on the Miniature Instrument there is no Right-hand Indicator showing "For Staff" and "For Bell."

## BLOCK WORKING INSTRUCTIONS.

**Instructions supplementary to those contained in Appendices iv. to vii. inclusive, of the Book of Rules and Regulations.**

**(Special instructions are included under this heading.)**

*(For Special Instructions respecting the use of Trolleys, Tricycles, Quadricycles, and Motor Inspection Vehicles, see pages 493-498).*

### **ELECTRIC CONTROL OF FIXED SIGNALS BY MEANS OF TRACK CIRCUITS ON LINES WORKED UNDER THE RULES OF THE BLOCK TELEGRAPH SYSTEM OR THE LOCK AND BLOCK SYSTEM.**

**1.** On Lines where the Block Telegraph or the Lock and Block Systems are in force and the Signal controlling the entrance to a Block Section is controlled by Track Circuit, such Signal will be secured at the Stop position while a train or any portion of a train is in the Section, or until the whole of the train has arrived at the Signal-box next in advance.

**2.** Where the above arrangements are in operation, the employes engaged in Signalling duties or Working of Trains, are not relieved of responsibility for seeing that the Rules, Regulations and other instructions respecting the Block Telegraph System or, where in force, the Lock and Block System; protection of trains, obstructions, or the safe and proper working of the Lines and of the Trains and Signals are properly carried out; and, in addition, the following instructions must be strictly complied with by all concerned.

**3.** (a) Any of the following circumstances will prevent the Signal or Signals controlling the entrance to the Section from being placed to "Proceed":—

- (i.) A train, or portion of a train on the Section.
- (ii.) A broken or misplaced rail.
- (iii.) Any wire bond becoming broken or detached.
- (iv.) Any metallic or other conducting substance so placed as to form a connection between the two rails of either Line.

(b) If any defect hindering, or likely to hinder, the proper working of the Electrically Controlled Signals be noticed by any employe, steps should be at once taken to communicate with the Signalman at the nearest Signal-box, in order that the defect may be remedied without delay.

**4.** The following instructions must be observed should there appear to be a failure in connection with the working of any Signal that controls the entrance of trains into a Block Section; or in connection with the Block Instrument:—

- (a) In the event of the Signal failing to go to the "Proceed" position when the lever is pulled over, the Signalman, before allowing a train to proceed, must (unless he see that the Section is clear) confer with the Signalman at the

## BLOCK WORKING INSTRUCTIONS.

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Box in advance, and inform him of the circumstances, and if it be then ascertained that the Line is obstructed, arrangements must be made for the obstruction to be cleared as promptly as possible.

If the Signaller be unable to see whether the Line is clear and it is not reasonably practical to ascertain whether the Line is obstructed, the Driver of the first train to proceed through the Section must be verbally informed of the circumstances by the Signaller and instructed to proceed cautiously.

If after the train has arrived complete at the Signal-box in advance it is found that the Signal is defective, Regulation 95 must be observed, and steps must be immediately taken to have the Signal put into working order.

- (b) In the event of the Block Telegraph or Lock and Block Instrument failing, as well as the Fixed Signal, Rule 27 of the Block Rules must, in addition to the foregoing precautions, be complied with, and the Driver of the first train to proceed must also be cautioned in the way provided in sub-clause (a) above.

If the Block Telegraph or Lock and Block Instrument fail, and the Fixed Signal be in proper order, Rule 27 of the Block Rules must be complied with, but the train must not be allowed to proceed into the Section in advance until the Proceed Signal is exhibited by means of the Fixed Signal in the usual way.

- (c) The Signaller at any intermediate Signal-box (where the Lock and Block system is in operation) which requires to be opened, must be advised by the Signaller at the Box where the Signal is defective, not to switch in until he has been informed that the train, the Driver of which has been instructed to proceed cautiously, has arrived complete at the Signal-box in advance.

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### PERMISSIVE BLOCK TELEGRAPH, RULE 35, APPENDIX IV.

1. (a) Where Permissive Block Telegraph is in force more than one Goods train or Light Engine may be allowed in the Section at the same time, but whenever a **Passenger or Mixed train** is allowed in the Section it must be dealt with strictly in accordance with the Absolute Block Telegraph Rules whereby only one train is allowed in the Section at a time.

(b) Ordinary Block Instruments are used, and in addition a Mechanical Indicator is provided for the Signaller to record the number of trains in the Section.

(c) The General Code of Terms and Rules for Train Signalling by Block Telegraph will apply with the following modifications and additions.



## BLOCK WORKING INSTRUCTIONS.

### 2. Bell Signals in addition to the Ordinary Code (see Appendix Iv., Book of Rules and Regulations).

See Clause	Bell Signal.	Beats on Bell.	How to be given.
3 (b)	Previous Train still in Section	7	3—1—3
4 (a)	One Train out of Section ...	8	5—3
5 (a)	One Train withdrawn from Section at Box in the Rear	10	3—2—3—2

3. (a) When a train or engine is ready to enter the Section and the Instruments are in their normal position, the Signalman will send the **Is Line Clear?** signal, and when it has been acknowledged, he may exhibit the Signals to allow the train to proceed into the Section. The Signalman in advance, on receiving the **Train Departure** signal, will move his Indicator forward to indicate that one train is in the Section, and the Signalman in the rear on giving the **Train Departure** signal will, likewise, move his Indicator forward.

(b) When another train or engine is required to be sent forward into the Section before the previous train has been signalled as having arrived at the Box in advance, the Signalman must give the **Is Line Clear?** signal to the Box in advance, and the Signalman there will reply by giving the **Previous train still in Section** signal (3—1—3). Upon the **Previous train still in Section** signal being received, the second train or engine must be brought to a stand at the Home Signal, and the Driver must, by verbal instructions, be made to understand clearly the state of the Line ahead, after which the train may be allowed to proceed, a Green Flag by day and a Green Light by night held steadily in the hand being shown to the Driver and Guard, and the **Train Departure** signal sent. The Indicator at each Signal-box must then be moved on to indicate that a second train is in the Section. The same course is to be followed with each successive train or engine.

(c) In cases where the Home Signal is at such a distance from the Signal-box that it is not possible for the Signalman to speak to the Driver when his engine is standing at the Home Signal, the Signalman must, after bringing the train to a stand, place the Home Signal to the Proceed position to allow the Driver to draw up to his Box, stopping him there by showing a Red Hand Signal, and then by verbal instructions make him clearly understand the state of the Line ahead. After this has been done the Signalman must act as laid down in sub-clause (b) hereof.

(d) When a Calling-on Signal is provided, it will not be necessary to bring the train or engine to a stand at the Box, nor to verbally caution the Driver as to the state of the Line ahead, but unless instructions are issued to the contrary, the Calling-on Signal must be kept at the normal position until the train has been brought to a stand at the Home Signal, when the Calling-on Signal may be used to allow the train or engine to proceed as far as the Line is clear.

(e) When a Calling-on Signal is exhibited for a train or engine to enter the Section, the Driver and Fireman must only regard such

## BLOCK WORKING INSTRUCTIONS.

Signal as an indication that the Points are in a proper position, and must not expect that the Line will be clear, and they will be held responsible for stopping their train short of any obstruction.

(f) Not more than six engines, not coupled together, or six sets of engines (i.e., two or more engines coupled together), or six trains, must be in any Section worked under the Permissive Block System at one and the same time.

4. (a) As each train or Light Engine, except the last one, passes out of the Section, the **One train out of Section** signal (5—3) must be given to the Box in the rear, and the Indicator must be moved back one number so that the actual number of trains in the Section will be indicated. The Signaller at the Box in the rear will acknowledge the **One train out of Section** signal by repeating it. When the last train passes out of the Section the **Train Arrival** signal must, provided the train is complete, be given, and the Indicators must be placed in the normal position.

(b) Whenever two or more engines are waiting at a Fixed Signal, it must be distinctly understood that when the Signal to proceed is exhibited the Signal only applies to the first engine (or engines coupled together), and that the Driver of the next engine must not pass such Signal until it has been put to the Stop position and the Proceed Signal is again exhibited.

5. (a) When it is necessary in connection with Permissive Working to cancel the **Is Line Clear?** signal, and there is no train in the Section, Block Rule 20, Appendix IV., must be complied with. But if there is a train already in the Section, the **One Train withdrawn from Section at Box in Rear** signal (3-2-3-2) must be sent, and the indicator, if it has been moved forward, must be moved back one number at each Box, so that the actual number of trains in the Section will be indicated. An entry must be made in the Train Register Book recording the fact of the Signal having been cancelled, and whether by "3-5" or the "3-2-3-2" signal.

(b) The **Cancelling** signal or the **One Train withdrawn from Section at Box in Rear** signal, as the case may be, must only be used in cases where a train has been signalled to the Signal-box in advance, and it is found that such train did not proceed in the usual course.

6. (a) During Foggy Weather, or when from any other cause a distinct view cannot be obtained, when a Goods train is stopped at a Home Signal or on any portion of a Line worked under the Permissive Block System, the Guard must instantly go back with Detonators and Hand Signals to protect his train. He must go back 100 yards, plainly exhibiting his Red Danger Signal, and put down three Detonators ten yards apart upon the Line on which the train has stopped; he may then return to his train, but until it is ready to go forward he must remain on the ground at the rear of his train with Detonators and Hand Signals, prepared to take any further steps necessary for the protection of the train.

(b) In clear weather it will not be necessary for the Guard to go back as in the case of foggy weather, but he must descend from the van and remain at the rear of his train, with the proper Hand Signals, prepared to take any steps necessary for the protection of his train.

## BLOCK WORKING INSTRUCTIONS.

(c) Should the Guard in going back as per paragraph (a) arrive at or be close to a Signal-box he must, in addition to putting down the Detonators, advise the Signalman as to the position of his train.

(d) Should the stoppage occur to a Light Engine, the Fireman (or the Fireman of the rear engine if two or more be coupled together) must act in the way prescribed above for the Guard.

*NOTE.—It must be distinctly understood that in the case of a Passenger train being stopped in a Section ordinarily worked under the Permissive Block System, the Guard must act strictly in conformity with Regulations 239 and 240. See paragraph (a) of clause 1 of these Instructions.*

7. (a) In clear weather the speed of any train or engine passing over a Section worked under the Permissive Block System must not exceed 10 miles per hour, or such lower speed as may be specified for the Line or portions of the Line.

(b) FOGGY WEATHER.—In foggy weather, or when from any other cause a distinct view cannot be obtained, the rate of speed must not exceed 5 miles per hour on any Permissive Block Section.

8. On Lines worked under the Permissive Block System, each Signal-box is to be regarded as a Block Terminal.

9. The Sections worked under the Permissive Block Telegraph System are as under:—

Between Dudley-street Box, Melbourne Yard, and North Melbourne Junction, on the Up and Down Coburg Goods Lines.

Between Dudley-street Box, Melbourne Yard, and Weighbridge Junction on the Up and Down North-Eastern Goods Lines.

Between Dudley-street Box, Melbourne Yard, and Weighbridge Junction on the Up and Down Midland and Western Goods Lines.

Between Weighbridge Junction Box and South Kensington Junction, on the Up and Down Goods Lines.

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### OPENING AND CLOSING OF ELECTRIC STAFF (OR TABLET) STATIONS WHERE SWITCHING INSTRUMENTS ARE NOT PROVIDED.

1. Before an Electric Staff Station is opened or closed, the General Superintendent of Transportation will issue the necessary instruction as to the date and the time of, and the arrangements for, opening or closing the Station. The arrangements will be carried out by the Block and Signal Inspector and the Signal Supervisor for the Districts in conjunction. The Signal Supervisor will provide the requisite number of Staffs for the altered Sections, properly lettered and numbered.

2. Let "A," "B," and "C" represent three consecutive Stations. "A" and "C" are Electric Staff Stations. "B" is an ordinary intermediate Station, where there are Staff Instruments for use when "B" is open as a Staff Station.

## BLOCK WORKING INSTRUCTIONS.

The opening or closing, as the case may be, is to be carried out in the following manner:—

**Opening a Staff Station at "B."**—(i.) In accordance with clause 1, the date of opening will be specified in the instruction issued by the General Superintendent, and the last train which is to carry a Staff for the Section "A"—"C" will be stated in the same instruction. After having seen that the instrument at "A" for the Section "A"—"C" has been tested by a Staff being withdrawn and restored to the instrument as prescribed in Rule 29, the Block and Signal Inspector and the Signal Supervisor will be responsible for seeing, (1) that all except one of the remaining Staffs for the Section "A"—"C" are removed from the instrument, and securely locked away in a box provided for the purpose; and, (2) that a due proportion of the Staffs for the Section "A"—"B" is placed in the instrument at "A." The remaining Staff required for the last train specified to carry a Staff for the Section "A"—"C" must then be withdrawn from the Instrument by the Signaller in accordance with Rule 3. The responsible officers must note the phase of the instrument before the Testing signal is sent, and in order that when the Staff is to be withdrawn for the train the phase will be the same (Red or White), an even number of Staffs must be placed into the instrument if an even number is removed, and vice versa.

Both officers must then proceed by the specified train to "B," and, on arrival there, see that the remainder of the Staffs for the section "A"—"B" are placed in the instrument applying to that Section, and also that a due proportion of the Staffs for the Section "B"—"C" is placed in the instrument applying to the "B"—"C" Section. When this has been done they must proceed by the same train to "C," and, on arrival there, the Block and Signal Inspector must, if the train has arrived complete, see that the Staff for the Section "A"—"C," on which the train travelled, is placed in the instrument, and that the **Train Arrival** signal is sent and acknowledged. Both Officers must then see, (1) that all the Staffs for the Section "A"—"C" are removed from the instrument and securely locked away in a box provided for the purpose; and, (2) that the remainder of the Staffs for the Section "B"—"C" are placed in the instrument at "C." When this has been done, the Signal Supervisor may instruct the Electrical Fitter to switch in the Electric Staff instruments at "B," and thereupon the **Testing Instruments and Bells** signal, vide Rule 29, Appendix VII., must be exchanged by the Signallers at "A"—"B" and "B"—"C."

(ii.) After "B" has been **opened** the Block and Signal Inspector and the Signal Supervisor must check the Staffs withdrawn from the instruments at "A" and "C," and satisfy themselves that the full complement is properly accounted for.

## BLOCK WORKING INSTRUCTIONS.

They must also be certain that all the Staffs for the Sections "A"—"B" and "B"—"C" have been properly placed in the instruments.

- (iii.) Unless instructions are issued to the contrary, when a Staff Section is divided, the Signalman at the Station in the rear will be responsible for informing the Driver and Guard of each train that is about to proceed into the Section in advance, what is the next Staff Station. This will apply alike to the Signalman at a Temporary Staff Station (when there is another Temporary Staff Station in advance) as well as to the Signalman at a Permanent Staff Station. If the train be one that is not due to call, it must be stopped for the purpose. Except when Fixed Signals are not provided at the new Staff Station, it will not be necessary to carry out the provisions of this clause after the expiration of one month from the date on which it is opened as a Staff Station.
- (iv.) **Closing a Staff Station at "B."**—As explained in clause 1, the date of closing will be specified in the instruction issued by the General Superintendent, and the last train which is to carry a Staff for the Section "A"—"B" and the Section "B"—"C" will be stated in the same instruction. After having seen that the instrument at "A" for the Section "A"—"B" has been tested by a Staff being withdrawn and restored to the instrument as prescribed in Rule 29, the Block and Signal Inspector and the Signal Supervisor will be responsible for seeing, (1) that all except one of the remaining Staffs for the Section "A"—"B" are removed from the instrument and securely locked away in a box provided for the purpose; and, (2) that a due proportion of the Staffs for the Section "A"—"C" is placed in the instrument at "A." The remaining Staff required for the last train specified to carry a Staff for the Section "A"—"B" must then be withdrawn in accordance with Rule 3. The responsible officers must note the phase of the instrument before the Testing signal is sent, and, in order that when the Staff is to be withdrawn for the train the phase will be the same (Red or White), an even number of Staffs must be placed into the instrument if an even number is removed, and vice versa.

Both officers must then proceed by the same train to "B," and, on arrival there, the Block and Signal Inspector must, if the train has arrived complete, see that the Staff for the Section "A"—"B," on which the train travelled, is placed in the instrument, and that the **Train Arrival** signal is sent and acknowledged. He must then satisfy himself that the Driver of the specified train is in possession of a Staff for the Section "B"—"C," and when this has been done, both he and the Signal Supervisor must see that all the Staffs in the instruments at "B" for the Sections "A"—"B" and "B"—"C" are removed and securely locked away in a box

## BLOCK WORKING INSTRUCTIONS.

provided for the purpose. Before leaving "B" the responsible officers must see that the instruments for the Sections "A"—"B" and "B"—"C" are in such a condition that a Staff cannot be withdrawn at either end of either Section.

Both officers must then proceed by the same train to "C," and, on arrival there, the Block and Signal Inspector must, if the train has arrived complete, see that the Staff for the Section "B"—"C," on which the train travelled, is placed in the instrument, and that the **Train Arrival** signal is sent and acknowledged. The Block and Signal Inspector and the Signal Supervisor must then see that all the Staffs for the Section "B"—"C" are removed from the instrument at "C" and securely locked away in a box provided for that purpose, and that the remainder of the Staffs for the Section "A"—"C" are placed in the proper instrument. When this has been done, the Signal Supervisor may instruct the Electrical Fitter to switch out the Electric Staff Instruments at "B," and thereupon the **Testing Instruments and Bells** signal, vide Rule 29, Appendix VII., must be exchanged by the Signalmen at "A" and "C."

**NOTE.**—*The Block and Signal Inspector must communicate with the Signaller at "B," and arrange with him so that the train which is to be the last to carry a Staff for the Section "A"—"B" and the Section "B"—"C" will not pass nor cross another train at "B."*

(v.) After "B" has been closed, the Block and Signal Inspector and the Signal Supervisor must check the Staffs withdrawn from the instruments at "A," "B," and "C," and satisfy themselves that the full complement is properly accounted for. They must also be certain that all the Staffs for the Section "A"—"C" have been properly placed in the instruments.

3. If, when a Staff Station is being opened or closed, one or more Staffs be away for repairs, the Block and Signal Inspector must collect the Electrical Fitter's "Damaged Tablet or Staff Form" and hand it to the Signal Supervisor, who must arrange for the safe custody of any such Staff or Staffs in respect of which the Form was issued.

The Box containing the Staffs for the Sections "A"—"B" and "B"—"C" must be plainly addressed, marked "Important," and dealt with as may be arranged by the Signal Supervisor.

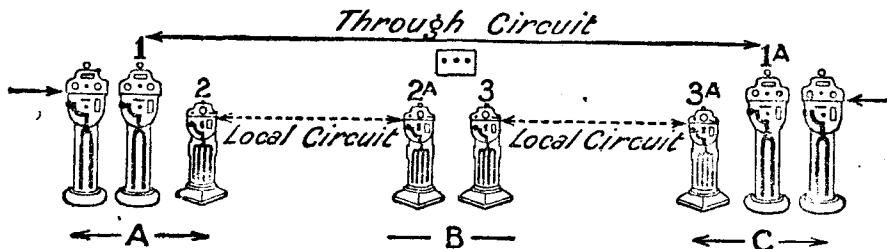
4. A certificate in duplicate must be signed by the Block and Signal Inspector and the Signal Supervisor certifying to the opening or closing of the Sections "A"—"B" and "B"—"C," and the closing or re-opening of the Section "A"—"C." One copy must be forwarded to the General Superintendent of Transportation, and the other to the Chief Engineer of Signals and Telegraphs.

## BLOCK WORKING INSTRUCTIONS.

5. List of Stations where Electric Staff Instruments are provided, but only brought into use as prescribed in these Instructions, when authorised by the General Superintendent:—

Barraport	Deep Lead	Leichardt	Tabilk
Bet Bet	Glenalbyn	Moolort	Wal Wal
Boorean	Goldsborough	Sutherland	Wychitella
Carapooco	High Camp		

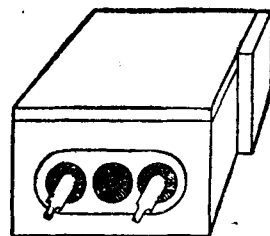
### OPENING AND CLOSING OF ELECTRIC STAFF STATIONS WHERE SWITCHING INSTRUMENTS ARE PROVIDED.



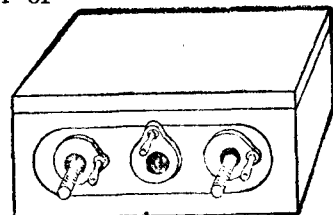
1. The above diagram illustrates the arrangements in use where a Switching Instrument is provided at the intermediate Station "B." The top line represents the Through Staff Section when "B" is "Switched Out," and the dotted lines indicate the Local Staff Sections when "B" is "Switched In."

The pair of Electric Staff Instruments, Nos. 1-1A, are in use for through working when "B" is closed, i.e., "Switched Out," and the two pairs of Instruments, 2-2A and 3-3A, are in use when "B" is open, i.e., "Switched In," as an Electric Staff Station. Instruments Nos. 1-1A cannot be used with Nos. 2A or 3, as the Staffs which enter Nos. 1 and 1A would not enter any of the other Instruments.

2. **Switching Instrument.**—A Switching Instrument fitted with three separate receptacles, as illustrated in the margin, is provided at Station "B." The object of this Switch is to prevent the issuing of Staffs from the Through Section Instruments 1-1A when "B" is open as an Electric Staff Station. When "B" is "Switched Out," two Local Staffs—one from each of the Instruments 2A and 3—are mechanically secured in their respective places in the Switch; it is not possible to remove either of these Staffs from the Switch unless an Electric Staff applicable to the Through Section "A"—"C" is inserted lettered side uppermost in the centre receptacle and used as a Key, and when one (or both) of the Local Staffs removed from the Switch the Through Staff cannot be removed until all three Staffs are again properly replaced in the Switch.



ORDINARY TYPE



MINIATURE TYPE

## BLOCK WORKING INSTRUCTIONS.

**3. The mode of operating the Switching Instrument at "B" is as follows:—**

### Switching In.

**BY ORDINARY ELECTRIC STAFF.**—Insert the Through Staff in the centre receptacle of the Switch, lettered side uppermost, and give the Staff a quarter turn. Then give each of the Local Staffs in the Switch a quarter turn; this will allow of the Local Staffs being withdrawn, will secure the Through Staff in the Switch, and also "Switch In" the Electric Staff Instruments for the Local Sections.

**BY MINIATURE STAFF.**—Insert the Through Staff in the centre receptacle (lettered end out), press well home, and turn the small handle. This secures the Through Staff in the Switch and permits the Local Staffs to be withdrawn after the small handle alongside each of the Local Staffs has been turned.

### Switching Out.

**BY ORDINARY ELECTRIC STAFF.**—Insert both Local Staffs in the proper receptacles, and give each a quarter turn. Then give the Through Staff a quarter turn; this will allow of the Through Staff being withdrawn, will secure the Local Staffs in the Switch, and also "Switch Out" the Electric Staff Instruments for the Local Sections.

**BY MINIATURE STAFF.**—Insert both Local Staffs in the proper receptacles and turn each of the two outer small handles; when this has been done the Through Staff can be withdrawn after turning the centre handle.

**4. Opening or Closing "B" by a Through Train.**—When it is necessary to open or close Station "B" by means of a Through Train, such arrangements must be carried out as specified hereunder:—

- (a) **OPENING.**—(i.) A Staff for the Through Section must be obtained by the Signaller at "A" or "C" in the regular way, and the Signaller in advance must at the same time be informed of the train and the purpose for which the Staff is to be used. The Staff so obtained must be handed to the Driver in the ordinary course, and, at the same time that it is handed to him, he must be informed that on the arrival of his train at "B," that place will be "Switched In," and that he will, therefore, require to stop at "B" and deliver the Staff to the Signaller to enable this to be done; if there be no Signaller at "B," one must travel by this train.

When the train arrives at "B" the Signaller must obtain the Staff from the Driver, and, as directed in clause 3, insert and turn it in the Switch. This, as already stated, will release the Local Staffs, and when the two Local Staffs have been turned lettered side up, will break down the Through circuit and bring in the two Local circuits.

The Local Electric Staff for the Section in advance must then be withdrawn from the Switch, and handed to the Driver.



## BLOCK WORKING INSTRUCTIONS.

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- (ii.) Prior to the departure of the train, the **Opening of Signal-box** signal (3—3—3) must be sent to, and be acknowledged by, the Station in advance, after which the **Train Departure** signal must be sent and acknowledged and the train allowed to proceed.
- (iii.) When the train has been despatched from "B," the Local Electric Staff for the Section in the rear must be withdrawn from the Switch, and, provided the train has arrived complete, inserted in its proper instrument and the **Train Arrival** signal sent; when this has been acknowledged, the **Opening of Signal Box** signal (3—3—3) must be exchanged with the Station in the rear, and then, in order to ascertain whether the Bells and Instruments for that Section are in proper working order, the **Testing Instruments and Bells** signal must be sent in accordance with No. 29 of the Electric Staff Rules. (See Appendix VII., Book of Rules and Regulations.)
- (iv.) When the train arrives complete at the Station in advance, the Electric Staff must be inserted in the Local Instrument (3A or 2 as the case may be), the **Train Arrival** signal sent, and the Bells and Instruments for the Section "B"—"C" tested.
- (b) **CLOSING.**—(i.) A Local Staff for the last train to travel through the Section while "B" is open, must be obtained in the regular way. At the same time, if all the Local Staffs at "B" for the Section in advance are in the Instruments, the Signaller at "B" must obtain permission to withdraw a Staff for that Section, but must not insert it in the Switch.
- (ii.) When the train arrives at Station "B" the Signaller must obtain from the Driver the Local Electric Staff for the Section in the rear, and, provided the train has arrived complete, give the **Train Departure** signal to the Station in advance. After the **Train Departure** signal has been acknowledged, the **Closing of Signal-box** signal (3—4—3) must be sent to, and acknowledged by, the Station on each side.
- (iii.) When the **Closing of Signal-box** signal has been exchanged, and the Fixed Signals and Interlocking Apparatus have been dealt with in accordance with the special instructions respecting the place, the Local Staffs must be inserted in the Switch and turned so as to "Switch Out" the Local Circuits and "Switch In" the Through Circuit. The Through Staff must then be turned, lettered side uppermost, withdrawn from the Switch, and handed to the Driver; the train may then be allowed to proceed.
- NOTE.*—Care must be taken not to operate the Switching Instrument by means of a Local Staff or by the handles of a Miniature type, until the **CLOSING OF SIGNAL-BOX** signal has been acknowledged.
- (iv.) If, when "B" is being "Switched Out," the train which carries the Through Staff should proceed to "A," viz., the

## BLOCK WORKING INSTRUCTIONS

Station at which the Through Staff was withdrawn from the Staff Instrument, the Signaller at "A" must, provided the train has arrived there complete, replace the Staff in its Instrument and send the **Cancelling** signal, vide Rule 20; but if the train should proceed from "B" to the Station at the opposite end of the Through Section, viz., Station "C," the Signaller at "C" must send the **Train Arrival** signal in the ordinary course to "A."

- (v.) The **Testing Instruments and Bells** signal (3—5—3) must then be exchanged between the Staff Stations "A" and "C," after which the ordinary signalling of trains on the Through Instruments may be resumed.

**5. Opening or Closing "B" by a Local Train.**—When it is required to open or close Station "B" by a train which terminates at or returns from "B" or by a train to or from a Branch Line at "B," the following instructions must be observed:—

- (a) **OPENING.**—(i.) A Staff for the Through Section must be obtained by the Signaller at "A" in the regular way, and the Signaller in advance must at the same time be informed of the train, and the purpose for which the Staff is to be used. The Staff so obtained must be handed to the Driver in the ordinary course, and at the same time that it is handed to him, he must be informed that on the arrival of the train at "B," that place will be "Switched In," and that he will, therefore, require to stop and deliver the Staff to the Signaller there, to enable this to be done. If there be no Signaller at "B," one must travel by this train. The **Train Departure** signal for this train must not be given to the Station in advance.
- (ii.) When the train arrives at "B," the Signaller must obtain the Staff from the Driver, and use it to release the Local Staffs from the Switch.
- (iii.) If the train has arrived complete, the Local Staffs must be placed in their respective Instruments, and the **Train Arrival** signal given to the Station in the rear; the **Opening of Signal-box** signal (3—3—3) must be then exchanged with the Station on each side, and the **Cancelling** signal sent to the Station in advance; the Instruments must then be tested in accordance with No. 29 of Electric Staff Rules.
- (b) **CLOSING.**—(i.) When the train is ready to leave on the return journey, permission must be obtained to withdraw a Local Staff for the Section on each side. These must be properly placed in the Switch, and, after the Fixed Signals and Interlocking Apparatus have been dealt with in accordance with the special instructions respecting the place, the **Train Departure** signal must be sent and acknowledged, and the **Closing of Signal-box** signal (3—4—3) exchanged with the Staff Station on each side. The "Switching Out" of the Local Instruments must then be completed, and the Through Section Staff withdrawn from the Switch and handed to the Driver for the train to proceed.

## BLOCK WORKING INSTRUCTIONS.

- (ii.) When the train arrives at "A," and the Signaller is satisfied that it is complete, he must, in order to let the Signaller at the other end of the Through Section know that the train has returned, place the Staff in the Instrument and send the **Cancelling** signal.
- (iii.) If, however, the train instead of returning to "A," viz., the Station from which it originally started, proceeds to the Staff Station at the other end of the Through Section, the **Train Arrival** signal must be given in the ordinary course.

**6.** When a Through Staff is required for the purpose of "Switching In" "B," the Signaller must take care to select one that is in good order, as great inconvenience may be caused if the Staff will not operate the Switch at "B." The Staff used for this purpose should be quite straight, and the feather in the key end should be clean, and not in any way burred. Similar care should be taken at "B" when withdrawing Local Staffs for "Switching Out."

As far as practicable, a Staff should be retained for this special use in the Instrument at "A" and "C."

**7.** Full particulars as to the opening and closing of "B" and the times that the various signals and messages are exchanged must be entered in the Train Register Books.

**8.** Except where Special Instructions are issued to the contrary, when the Permanent Staff Section is divided, the Signaller at the Staff Station on each side of the Temporary Staff Station will be responsible for informing the Driver and Guard of each train that is about to proceed into the Section in advance what is the next Staff Station. This will apply alike to the Signaller at a Temporary Staff Station (when there is another Temporary Staff Station in advance) as well as to the Signaller at a Permanent Staff Station. If the train be one that is not due to call, it must be stopped for the purpose.

*Where a Station is regularly open as a Staff Station for certain portions of the day or of certain days each week, and the hours during which the Station will be open as a Staff Station are specified in the Working Time Table, it will not be necessary to carry out the provisions of clause 8.*

**9.** (a) The Electric Staff for the train by which "B" is to be opened must be applied for in sufficient time to permit of Pilot-working being established on the Through Section between "A" and "C" in the event of a failure owing to which the Staff cannot be withdrawn. See clause (c) of No. 3 Electric Staff Rules, also clause 5, page 648 of this book.

Where necessary, a Master Key will be provided at "A," and this must be handed to the Signaller when proceeding to take charge at "B"; the Pilotman, who will be appointed in accordance with No. 27 of the Electric Staff Rules, must at the same time be informed. The Station-master at "A" will be responsible for the safe custody of the Master Key whilst it is at his Station.

(b) If a failure should occur after "B" has been opened the place must be kept open and trains dealt with in accordance with No. 27 of the Electric Staff Rules.

## BLOCK WORKING INSTRUCTIONS.

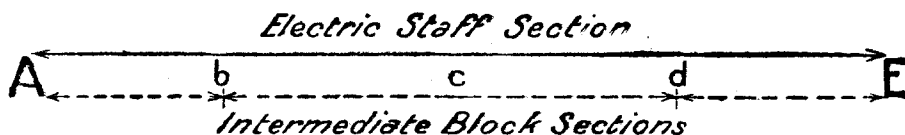
(c) In the event of a train by which "B" is to be closed not arriving complete, and it is found necessary to clear any obstruction, the place must not be closed until such time as the Section is again clear.

Switching Instruments are provided as shown hereunder :—

Line.	Intermediate Stations at which the Switching Instruments are provided.	Reference to other special instructions re Fixed Signals, Interlocking, etc.
Northern	... Woodvale ...	739
"	... Bendigo Racecourse	See page 737
Midland	.. Teddywaddy ..	See page 743
South Western	... Geelong Racecourse ...	See page 764
" "	... Armytage ...	See page 764
" "	... Timboon Junction	See pages 766-767
Western ...	... Burrumbeet Racecourse Jun.	See page 754
Fern Tree Gully	... Lower Fern Tree Gully	See page 864
Hurstbridge	... Macleod ..	See pages 854-855

### WORKING OF SPECIAL BLOCK POSTS IN ELECTRIC STAFF SECTIONS BY MEANS OF A COMPOSITE ELECTRIC STAFF.

1. When in consequence of special traffic, and in order to facilitate the traffic in one direction, authority is given by the Superintendent of Transportation for one or more intermediate Special Block Posts to be opened in a Section worked under the Rules of the Electric Staff System, the Signalling of trains must be carried out in accordance with the following instructions:—



"A," "b," "c," "d" and "E" are five consecutive Stations. "A" and "E" are Electric Staff Stations and the top line represents

## BLOCK WORKING INSTRUCTIONS.

the Staff Section. The three Stations "b," "c," and "d" are ordinary intermediate Stations, and it has been decided to open two of the intermediate Stations (say "b" and "d") as Special Block Posts. When this has been done, the Staff Section "A"—"E" will not be altered, but will be divided into three Special Telegraph Block Sections, viz.:—"A"—"b," "b"—"d," and "d"—"E," as shown in dotted lines.

2. One or more Composite Electric Staffs are provided in the Electric Staff Instruments for the Section in which the Special Block Post or Posts are to be opened. Each Composite Staff is so constructed that, after it has been withdrawn from the Electric Staff Instrument in the ordinary way, it may be separated into three portions; one of the end portions is marked "Ticket A," and the other end "Ticket B"; the centre portion is marked "Staff."

3. When the Signalman at "A" or the Signalman at "E" is aware that a train sent on an ordinary Electric Staff would delay a following train, and the use of the Composite Staff is authorised, it may be used as under:—

- (i.) Permission to withdraw a Composite Staff from the Instrument must be obtained in the same way as is laid down for withdrawing an ordinary Electric Staff, and when the Composite Staff is obtained, the Signalman at each of the Special Block Posts must be informed. The separate portions of the Staff may then be used to allow two trains, or, if necessary three trains, to run in the same direction.
- (ii.) When it is required to send three trains in the same direction, the portion of the Composite Staff marked "Ticket A" must be handed to the Driver of the first train, the portion marked "Ticket B" to the Driver of the second train, and the portion marked "Staff" to the Driver of the third train.

The departure of each train travelling on "Ticket A" or "Ticket B," portion of the Composite Staff must be telegraphed, or where there is no telegraph instrument, telephoned to the Block Post or Staff Section in advance.

- (iii.) The second train must not be allowed to enter the Block Section "A"—"b" until the Signalman at "b" has telegraphed, or, where there is no telegraph instrument, telephoned that the first train has arrived complete, and the third train must not be allowed to enter the Section until he has telegraphed, or, where there is no telegraph instrument, telephoned that the second train has arrived complete. Similarly, the second and third trains must not be allowed to leave "b" until the Signalman at "d" has telegraphed, or, where there is no telegraph instrument, telephoned that the first and second trains respectively have arrived complete, and the second and third trains must not be allowed

## BLOCK WORKING INSTRUCTIONS.

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to leave "d" until the Signaller at "E" has telegraphed, or, where there is no telegraph instrument, telephoned that the first and second trains respectively have arrived complete. See specimen Telegraph Code Messages at end of this clause.

- (iii.) If it be necessary for only two trains travelling in the same direction to use the Composite Staff, the portion marked "Ticket A" must be handed to the Driver of the first train, and the portion marked "Ticket B," together with the centre portion, marked "Staff," must be handed to the Driver of the second train. Both trains must be telegraphed between each Block Post as provided in sub-clause (ii.).

Where necessary, the Ticket portions "A" and "B" of the Composite Staff are fitted as Keys for the operation of Staff-locked Points.

- (iv.) When a train is assisted by an engine in the rear, the Ticket, or the Ticket and Staff combined, as the case may be, must be shown to each Driver, and delivered to, and carried by the Driver of the engine in the rear. See amendment to Rule 1, Appendix VII., shown on page 9 of this Book.
- (v.) Should any train travelling on "Ticket A" or "Ticket B" be assisted by a Return Bank Engine in the rear, the portion carried by the Train Engine must be shown on the Bank Engine Key Form (see No. 38 of the Electric Staff Rules), and the remaining portion or portions of the Composite Staff, together with the Bank Engine Key, must be handed to the Driver of the Return Bank Engine, who must see that he receives them, and when the Bank Engine returns, the portion or portions of the Composite Staff must be handed to the Signaller, along with the Bank Engine Key. Should the Return Bank Engine be authorised to assist a train to a point beyond a Special Block Post, the Signaller there must be informed when a train is to be assisted by a Return Bank Engine.

In such circumstances the Signaller at the Block Post which the train has passed must, when sending the Acre message, add to the message these words: "Return Bank Engine proceeding with train," and when the Bank Engine is ready to proceed on its return journey, the Signaller must notify the Signaller in the rear as follows: "Bank Engine left on return journey." An entry must be made in the Train Register Book, showing that the messages were sent or received, and the time.

- (vi.) When a Composite Electric Staff has been withdrawn from the Instrument the Signallers at "A" and "E" must remain in close attendance until the Staff is restored to the Staff Instrument.

## BLOCK WORKING INSTRUCTIONS.

*Code Words and Forms of Messages referred to in Clause 3.*

Code Word.	Text of Message represented by Code.
Apix     ...     ...	.....train left here at.....
Acre     ...     ...	.....train has arrived complete.

**Code Form to be used.**

To.....

(4.40 p.m.)—"Apix" (6.0 p.m.)

*Signature*.....

**Code Form to be used.**

To.....

(4.40 p.m.)—"Acre."

*Signature*.....

4. (a) When a Block Post is opened between Staff Stations, a following train must not be allowed to leave a Staff Station or intermediate Block Post until the previous train has been reported as having arrived at the Block Post or Staff Station in advance.

(b) Unless Special Instructions are issued to the contrary, the Fixed Signals (where provided) at Special Block Posts must be lighted according to requirements, and worked during the time the Signalman is on duty. When a train has been stopped at the Home Signal, and it is necessary to draw it within such Signal before the Section ahead is clear, the Signalman, after exhibiting the Signal for the Driver to draw ahead, must stop the train at the Station by exhibiting a Red Flag by day and a Red Light by night or in foggy weather, and then by verbal instructions give the Driver clearly to understand the state of the Section ahead. (See Regulation 62.)

5. (a) At a Block Post where Fixed Signals are not provided, no train must be reported as having arrived until it is a quarter of a mile beyond the Block Post and proceeding on its forward journey, and whenever the Section in advance is occupied or when for any other reason it is necessary to stop an approaching train, the Signalman must place three Detonators ten yards apart on one rail of the Line, and exhibit a Red Hand Signal to the Driver; the Detonators must be placed a sufficient distance (at least 100 yards) outside the Signalman's Hand Signal. When the previous train in the same direction is reported as having arrived at the Station or Block Post next in advance, a Green Hand Signal must, unless the Regulations require otherwise, be exhibited to the Driver and Guard, and the Detonators removed.

**BLOCK WORKING INSTRUCTIONS.**

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(b) The Driver of any train travelling on any portion of the Composite Staff must keep a good look-out when approaching a Block Post where Fixed Signals are not provided, and must stop, unless the Green Hand Signal is exhibited by the Signalman as an intimation that the train may proceed; when a train has stopped at the Intermediate Block Post, the Driver must not accept the Guard's Signal to start unless verbally instructed to do so by the Signalman, and when instructing the Driver to proceed the Signalman must exhibit a Green Hand Signal.

*Clause (b) will not, however, relieve the Signalman of responsibility for placing the Detonators and exhibiting the Red Hand Signal, as prescribed in clause (a).*

**6.** The Driver of any train which is to proceed on the portion of the Staff marked "Ticket A" or "Ticket B" must not do so without first seeing the centre portion marked "Staff."

**7.** Each portion of the Composite Staff applies to the whole of the Staff Section "A"—"E," but the Driver of a train running on any portion of that Staff must show the portion he is carrying to the Signalman at each Special Block Post.

**8.** Before the Composite Staff can be placed in the Instrument after having been used, the three portions must be properly fastened together. The Signalman at the Staff Station in the rear, "A" or "E," must be advised when the Special Staff is replaced, and the time at which it is withdrawn and replaced must be recorded in the Train Register Books at each Staff Station.

The separate portions of the Composite Staff must be screwed firmly home at the joints when uniting them, otherwise there may be difficulty in placing the Staff into the Instrument.

**9.** The Signalman at "A" and "E" must arrange to have the Composite Staff at the end of the Section at which it will be required. To enable this to be done, it may, after being withdrawn in the regular way, be handed complete as an ordinary Electric Staff to the Driver of any train which is running through the Section under the ordinary Electric Staff working conditions; the Signalman in advance must be informed.

**10.** Telegraph or telephone communication will be established between the Staff Stations and Block Posts to which these instructions apply, to be used as required until the Signalmen at both Staff Stations advise the Signalmen at the Special Block Posts that the Block messages are no longer necessary.

**11.** In the event of the Telegraph or Telephone Instrument failing when the Composite Staff is in use, no train must be allowed to follow another at an interval of less than five minutes, nor then unless the full running time of the Special Block Section has elapsed, and the Driver has been furnished on the prescribed form with a "Notice of Train Ahead."

**12.** When a train travels on a portion of the Staff marked "Ticket A," or on the portion marked "Ticket B," without the centre portion marked "Staff" attached, the Signalman must verbally inform



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the Guard of the circumstance, and in such a case it will be necessary for the Guard, or the Fireman, in the case of a Light Engine, to carry out the provisions of Regulation 239 should the train or Light Engine be stopped outside the protection of Fixed Signals by accident, or other cause, or in the event of its remaining stationary for a longer period than usual at any Block Post where the train is not protected by Fixed Signals.

**13.** When this Instruction is brought into force, the District Superintendent must (except as shown in clause 15) arrange to place a competent man in charge at each place.

The Block and Signal Inspector must provide Train Register Books and necessary Forms, which must be returned to the Inspector's Office when the Special Block Post is no longer required.

**14.** Composite Electric Staffs are provided for use, in accordance with the foregoing Instructions, on the Electric Staff Sections specified hereunder:—

Section for which Composite Electric Staff may be used.	Intermediate Stations that may be worked as Special Block Posts by means of Composite Staff.
Sunshine—Rockbank . . . . .	Deer Park
North Bendigo Junction—Goornong . .	Huntly or Bagshot†
Rochester—Echuca . . . . .	Strathallan†
Kerang—Lake Boga . . . . .	Lake Charm or Mystic Park†
Ouyen—Speed . . . . .	Bronzewing†
Bacchus Marsh—Ingliston . . . . .	Rowsley or Bank Box*
Murtoa—Minyip . . . . .	Coromby
Dunkeld—Hamilton . . . . .	Strathkellar; see page 776
South Geelong—Moriae . . . . .	Grovedale
Birregurra—Irrewarra . . . . .	Warncort; see page 765
Panmure—Allansford . . . . .	Cudgee; see page 767
Benalla—Glenrowan . . . . .	Winton
Tallarook—Yea . . . . .	Kerrisdale†
Numurkah—Strathmerton . . . . .	Katunga†
Tongala—Echuca . . . . .	Koyuga†
Ebden—Tallangatta . . . . .	Huon
Glengarry—Cowwar . . . . .	Toongabbie
Traralgon—Rosedale . . . . .	Flynn
Stratford—Fernbank . . . . .	Munro
Korumburra—Leongatha . . . . .	Kardella
Leongatha—Stony Creek . . . . .	Meeniyan
Wandin—Yarra Junction . . . . .	Woori Yallock

Note 1.—\*See special instructions on page 748 respecting system of working when Rowsley is open as a Block Post for Up trains.

Note 2.—†Stations indicated by a dagger may be opened as Intermediate Block Posts in accordance with clause 15, pages 638-639.

Note 3.—The Telephone at some Intermediate Stations is only connected to one Staff Station, and in such a case the Station-master at the Staff Station to which the Telephone is connected must, whenever the Composite Staff is used, arrange for a competent employe being in attendance to promptly deal with Train messages.

## BLOCK WORKING INSTRUCTIONS.

**15. Intermediate Block Posts at which the Guard Acts as Signaller.**—(a) Where specially authorised by the General Superintendent of Transportation, Guards of trains travelling on the portions of the Composite Staff may be utilised to perform the Signalling duties at an Intermediate Special Block Post in accordance with the following instructions:—

Unless specially authorised, only one Block Post shall be worked under this clause in any Staff Sections.

(b) The Guard of each train travelling on any portion of the Composite Staff, must have access to the office at the intermediate Block Posts.

(c) When two trains are to travel in succession through the Staff Section:—

(i.) On arrival of the train travelling on Ticket A at an intermediate Block Post, and after Station work has been completed, the Guard must send the Apex Message to the Block Post next in advance, and, provided his train has arrived complete, send the Acre Message to the Block Post next in the rear. And, after these messages have been repeated back correctly to him, he must despatch the train.

(ii.) The Guard of the following train, on arrival at an intermediate Block Post, must, after the Station work has been completed, communicate with the Block Post next in advance and not allow his train to depart until he has received the "Acre" message for the preceding train.

(d) When three trains have to travel in succession through the Staff Section:—

(i.) The Guard of the first train will act as laid down for the Guard in Section (i.) of the preceding sub-clause (c).

(ii.) The Guard of the second train will act, as prescribed for the Guard in Section (ii.) of sub-clause (c), and, in addition, immediately before leaving he must, if his train has arrived complete, send the Acre Message to the Block Post next in the rear.

(iii.) The Guard of the third train will act as laid down for the Guard in Section (ii.) of sub-clause (c).

(e) Where Fixed Signals are provided, the Guard, if he be aware when his train arrives, or become aware after it arrives, that it will stop for more than 30 seconds, must immediately place all necessary Signals to the Stop position, and keep them at that position until the train is quite ready to proceed on its journey, when he must place such Signals to the Proceed position.

Where a Fixed Signal is not provided, the Guard of a train travelling on "Ticket A" or "Ticket B" portion of the Composite Staff must if after sending the Acre Message his train be detained at an intermediate Block Post, protect his train in accordance with Regulation 239.

(f) In the event of the Telephone Instrument failing when the Composite Staff is in use, no train must be allowed to follow another

## BLOCK WORKING INSTRUCTIONS.

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at an interval of less than five minutes, nor then unless the full running time of the Special Block Section has elapsed, and the Driver has been furnished on the prescribed form with a "Notice of Train Ahead."

A Notice of Train Ahead book will be supplied for use at the intermediate Block Post; the Book must be kept in the usual safe position in the office. The Officer-in-Charge at the Staff Station at each end of the Section must make himself conversant with the location of the Train Ahead Notice Book so that the Guard can be instructed where to find it in case it should be required for use.

(g) All messages exchanged by the Guards must be entered in the Train Register Book, which will be provided at the intermediate Block Post, and the Train Register Book must be forwarded to the Block and Signal Inspectors' Office, Flinders-street, by the first available train on Mondays. The Officer-in-charge of the supervising station must see that the Train Register Book is forwarded.

(h) The Signaller at the Staff Station in the rear will be responsible for instructing Guards and Drivers of trains, working under above conditions, in writing of the arrangements in force at the intermediate Block Post, and the Drivers and Guards concerned must sign for the instructions on a copy to be held by the Signaller, which must be subsequently forwarded with the Train Register Book to the Block and Signal Inspector each week.

### **16. Section Obstructed by Accident or by Disabled Train.—**

(a)—WHEN THE TRAIN IS TRAVELLING ON PORTION MARKED "STAFF."—In the event of an engine which carries the portion marked "Staff" breaking down between two Stations, the Fireman must take the Staff to the Staff Station in the direction whence assistance can be obtained or is expected, in order that the Staff may be at the Station on arrival of the Relief engine; and the Station-master at the Station to which the Staff is taken will be responsible for carrying out all special arrangements necessary during the continuance of the obstruction.

Should the Fireman proceed to the Station in advance and the Relief engine is to be supplied from that end, the Fireman of the disabled engine must not allow the Staff to pass out of his possession until he hands it to the Driver of the Relief engine, and the Fireman must accompany him to the place where he left his own engine; the Signaller, before allowing the Relief engine to leave, must see the Staff in the Driver's possession. The Driver of the Relief engine must retain possession of the

## BLOCK WORKING INSTRUCTIONS.

Staff until he has removed the disabled engine, or engine and train, clear of the Section. Should the Relief engine be obtained from the opposite end of the Section, the Signaller at the Staff Station in advance must obtain the Staff from the Fireman, insert the complete Staff in the Instrument, and give the **Engine of Last Train Disabled in Section** signal (2-1-2-1) to the Signaller at the opposite end. This must be done in the presence of the Fireman.

The Relief engine to be sent into the Section to remove the disabled engine or train must be dealt with as prescribed in Rule 16 of Appendix VII.

The Fireman, when proceeding to the nearest Station for assistance, must place Detonators on the Line, as prescribed in Regulation 239, and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to an engine not attached to a train, the Fireman, when proceeding in either direction for relief, must place Detonators on the Line as directed in Regulation 239 for the protection of the disabled engine, and the Driver, after securing his engine, must similarly protect it in the opposite direction, and then return to his engine.

(b) **When the Train is travelling on Ticket "A" or "B."**—Should the engine that fails be in possession of a portion of the Composite Staff marked "Ticket," and not the Staff, the following instructions will apply:—

(i.) If at the time of failure the train be nearer or within reasonable distance of the Station in the rear, whether the Station in the rear be an Intermediate Block Post or an Electric Staff Station, the Driver must send his Fireman with the portion marked "Ticket" to that Station, and the Signaller there will be responsible for making all necessary arrangements for relief; and the Fireman must accompany the Relief engine to the place where he left his own engine. The Guard must protect the obstruction until relief arrives.

(ii.) If assistance can be more readily obtained from the Staff Station in advance, or the Breakdown be nearer to that Station than to the Station in the rear, the Driver must send his Fireman with the portion of the Staff marked "Ticket" and a written order to the Station-master at the Staff Station in advance, stating the nature of the failure, the place where it has occurred, and authorising the Station-master to allow a Relief engine to proceed to remove the disabled engine or engine and train. The Station-master on receiving the written order must endorse and return it, and arrange for the despatch of a Relief engine. The Fireman must hand the portion of the Staff marked "Ticket" and the written order to the Driver of the Relief engine, and accompany him to the place where he left his own engine. The Driver of the Relief engine, after removing the disabled engine, or engine and train, to the end of the Section to which it was previously proceeding, must deliver up the written order to the Station-master by whom it was endorsed.

**BLOCK WORKING INSTRUCTIONS.**

- (iii.) The Fireman, when proceeding to the Station in advance for assistance, must place Detonators on the Line, as prescribed in Regulation 239. The Guard must protect his train **in the rear.**
- (iv.) Should there be no Relief engine at the Station in advance, the Signalman there must confer by Telegraph or Telephone with the Signalman at the intermediate Block Post or Staff Station (whichever is next) in the rear, stating the nature of the failure; the place where it has occurred, and specifying the portion of the Composite Staff which he has seen in the possession of the Fireman of the disabled engine. The Signalman at the Station in the rear must then make the necessary arrangements for sending a Relief engine. If the disabled engine is travelling on the portion of the Composite Staff marked "Ticket A" the Driver of the Relief engine must have possession of the portion marked "Ticket B." If the disabled engine travelled on the portion of the Composite Staff marked "Ticket B," the Driver of the Relief Engine must have possession of the portion marked "Staff." The Driver of the Relief engine must also be given a written order, stating the position of the disabled engine, and must sign for the order on a copy held by the Signalman. The Signalman at the Station in advance must cancel the Driver's order by writing the word "Cancelled" across the face of it, and hand the order to the Fireman, who must return and deliver it, together with the Ticket portion of the Staff, to the Driver of the disabled engine. The Driver of the disabled engine must then hand over the Ticket portion of the Staff to the Driver of the Relief engine, who, after removing the disabled engine or engine and train to the end of the Section to which it was proceeding, must deliver each portion of the Composite Staff in his possession, together with the written order, to the Signalman.

(c) The Driver of the disabled engine in each case must not allow his train to be moved until the Relief engine arrives, unless satisfactory arrangements have been made to prevent the Relief engine from coming to his assistance, and when a written order has been issued, until the Fireman has returned and handed the order back to the Driver.

**16. A (a) SHOULD AN ACCIDENT OR OBSTRUCTION OCCUR, AND THE TRAFFIC IS LIKELY TO BE STOPPED FOR A CONSIDERABLE TIME, special arrangements must be made for working the trains to and from the Staff Station on each side of the point of obstruction. The Staff must be retained to work trains between the point of obstruction and the Staff Station on the one side, and, on the other side, the traffic must be conducted by a Pilotman.**

(b) Should the obstruction be caused by a disabled train, the Staff must be used to work trains between the point of obstruction and the

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Staff Station on the one side, and on the other side the traffic must be conducted by a Pilotman in accordance with the following instructions:—

- (i.) The Guard must put the Driver in charge of the point of obstruction, and the Driver must then give the Guard a written order addressed to the Station-master at the Staff Station in advance, stating the point of obstruction and intimating that he will not allow the disabled engine or train to be moved until the Relief engine or train arrives. The Guard must then proceed to the Staff Station in advance, and hand the written order to the Station-master, advising him of what has occurred. The Station-master must then make arrangements for working by Pilotman during obstruction in accordance with Rule 16A of the Electric Staff and Tablet System, Appendix VII. The Driver, when put in charge at the point of obstruction, must hand the Staff (if the train be travelling on the portion marked "Staff") to the Fireman, and instruct him to take it back to the Staff Station from which it was issued, to work trains between that Station and the point of obstruction until the Line is clear. If the train be travelling on a portion of the Composite Staff marked "Ticket," the Fireman must take it back to the Intermediate Block Post or Staff Station (whichever is next), in the rear of the obstruction, and hand it to the Signaller, who must arrange to obtain possession of the Staff, and the traffic between the obstruction and the Staff Station in the rear must then be worked in accordance with Rule 16A of the Electric Staff and Tablet System, Appendix VII., Books of Rules and Regulations.
- (ii.) The Guard and Fireman of the disabled train when proceeding to the advance and rear Stations respectively must place Detonators on the Line, as per Regulation 239. On their return they will be held responsible for the protection of the obstruction until relieved.

**16. B (a)** WHEN A TRAIN OR PORTION OF A TRAIN IS LEFT UPON THE SINGLE LINE from accident or inability of the engine to take the whole forward, the Driver must not, if he is in possession of a portion of the Composite Staff marked Ticket, return for the rear portion of his train except by written instructions from the Guard, as prescribed in Regulation 243, and the Guard must protect his train in the rear, in accordance with Regulation 239, and prevent a following train pushing it ahead. If the Driver be in possession of the portion marked "Staff," he may return to the rear portion of his train without obtaining instructions from the Guard authorising him to do so.

**(b)** After sunset, or in foggy weather, before the front portion is drawn forward, a Red Light must be placed on the front vehicle of the rear portion by the man who divides the train. As soon as the first portion has been drawn forward sufficiently far, either by day or night, the Under Guard or the Fireman must place two Detonators upon the Line about 200 yards from the front vehicle of the rear portion, to notify the Driver when returning, of the position of the remainder of his train.

**TEMPORARY CONVERSION OF AN ELECTRIC STAFF SECTION INTO TWO TEMPORARY STAFF SECTIONS TO BE WORKED UNDER THE RULES OF THE TRAIN STAFF AND TICKET SYSTEM BY MEANS OF A DIVIDED STAFF.**

1. When it is necessary, in consequence of special traffic, to open an intermediate Station in a Section ordinarily worked under the Rules of the Electric Staff System, Appendix VII., the Electric Staff System on the Section in which the intermediate Station is located may be suspended, and the Electric Staff Section divided into two Sections worked under the Train Staff and Ticket System, Appendix II., Book of Rules and Regulations.

2. Before the intermediate Station is opened as a Staff Station, the General Superintendent of Transportation will issue instructions stating the date and time of the opening and closing, and specifying the Staff Station and the train by which it is to be done. The Block and Signal Inspector for the District will supervise the arrangements of opening and closing, which must be carried out in accordance with the following instructions:—

3. Let "A," "B" and "C" represent three consecutive Stations. "A" and "C" are Electric Staff Stations. "B" is an ordinary intermediate Station in the Staff Section "A"—"C," and it is required to open "B" as a Staff Station under the conditions specified in clause 1.

4. **The Divided Staff.**—To provide the requisite Train Staffs for the Temporary Staff Sections, "A"—"B" and "B"—"C," a special Electric Staff—defined as the Divided Staff—is placed in the Electric Staff Instrument for the Section "A"—"C" at "A," viz., the Staff Station at which the work of opening "B" is to be commenced. The Special Electric Staff is of the same pattern as other Electric Staffs for the Sections "A"—"C," except that it has the usual symbols for Temporary Staffs fixed at the ends, and is constructed in two portions normally connected by a rod which is passed through both portions and secured by a padlock. The respective portions of the special Staff, when separated, form the Temporary Train Staffs for the Section "A"—"B" or "B"—"C," according to the name plates fixed on each end. Staff Ticket Boxes will be provided at "A," "B" and "C," and by inserting the proper Train Staff—name plate uppermost—in the respective Ticket Box, the Box may be opened.

The Temporary Train Staff may also be equipped to open Staff Locks at intermediate Sidings as in the case of an ordinary Staff.

During the time "B" is open as a Temporary Staff Station, the Signalmen at "A" and "C" will require to stop each train which is to enter the Temporary Staff Sections, and advise the Driver and Guard that the usual Staff Section is divided; that the Train Staff and Ticket System is in operation, and that "B" is open as a Temporary Staff Station. The Guard must ascertain from the Signalman whether his train is to travel on a Staff Ticket, and must, when necessary, protect his train according to the requirements of the Train Staff and Ticket System.

5. The special Staff, which under normal conditions is secured in the Instrument, may be passed through the locks of the Instrument, as in the case of an ordinary Electric Staff, but the Temporary Staff Symbols attached at each end of the special Staff prevents its being removed

## BLOCK WORKING INSTRUCTIONS.

from the holder of the Instrument until the padlock is released, the connecting rod withdrawn, and the two portions of the Staff are detached. It therefore cannot be used except when required for the purposes of these Instructions, and it must not be withdrawn by the Signalman except when, in accordance with clause 2, these arrangements are authorised, and it must then be withdrawn, dealt with, and replaced into the Instrument, as specified hereunder:—

(i.) **Opening "B" as a Staff Station.**—When a Staff is required for a train specified by the General Superintendent (see clause 2), the special Electric Staff must be withdrawn—permission being obtained in the regular manner, in accordance with the Rules of the Electric Staff System.

When the special Staff has been withdrawn, the Block and Signal Inspector must release the padlock and connecting rod, remove the Divided Staff, and hand the Staff Ticket-boxes and the proper portions of the Staff to the Signalmen at the respective Staff Stations where, in accordance with the requirements of traffic, the latter are to be used as Train Staffs. The Electric Staff System will then be suspended, "B" will be worked as a Staff Station, and the traffic conducted under the Rules of the Train Staff and Ticket System; the Temporary Staff Sections being "A-B" and "B-C."

(ii.) **Closing "B" as a Staff Station.**—When the special traffic is completed and the Temporary Staff Sections are both clear, and the Points at "B" are secured in the normal position for the Clear Running Line, the Block and Signal Inspector must obtain possession of both Temporary Train Staffs, and after placing them in the holder of the proper Staff Instrument, secure them together by means of the connecting rod and padlock. The Signalman must then insert the complete Staff into the instrument and send the prescribed signal—see next paragraph—to the Signal-box at the opposite end of the Electric Staff Section. The Train Staff and Ticket System will be then cancelled, and the Electric Staff System resumed on the Section "A-C." Before allowing the Electric Staff System to be resumed, the Block and Signal Inspector must make certain that both Temporary Staff Sections are clear.

If the train which is the last to leave "B" under the Train Staff and Ticket System is to proceed to "C," the Signalman there must, after inserting the Complete Staff into the Instrument for the Section "A-C," send the **Train Arrival** signal in accordance with Rule 12; but should the last train proceed to "A," viz., the Staff Station at which the opening of "B" was commenced—the Signalman at "A" must, after the Staff has been replaced in the Instrument, send the **Cancelling Signal**, vide Rule 20 of the Electric Staff System. In either case the Signalman must first ascertain that the train has arrived complete.

6. The connecting rod and padlock (locked together), when detached from the divided Staff, must be kept in a safe place ready for use at the proper Station when the special traffic is completed; if it



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be necessary for them to be transferred from "A" to "C," the rod with the padlock attached must be waybilled as a value parcel, and the Signalman at "C" must be advised of the train by which it is being sent.

The Block and Signal Inspector must see that the two portions of the special Staff are properly secured by the padlock when placed into the Instrument.

**7.** Unless otherwise arranged by the General Superintendent, the Block and Signal Inspector must supervise the signalling arrangements and Staff and Ticket working at "B," and must arrange for the Signals to be lighted and extinguished or crossed, as per Regulation 91, according to the instructions, when required.

Should one or more Master Keys be necessary for shunting operations at "B," the Block and Signal Inspector must obtain them from the office of the Superintendent of Goods Train Service, and before leaving "B" with the last train the Inspector must obtain possession of the Master Key or Keys and promptly return them to the office of the Superintendent.

**8.** (a) The Signal Supervisor for the District will be responsible for having the necessary name plates properly fixed on the special Staff and on the Staff Ticket Boxes, and for having the Staff in the proper Instrument when required for use in accordance with these instructions (see clause 2). The Block and Signal Inspector must see that the name plates on the Train Staff and Boxes are correct before handing them to the Signalmen.

(b) The Block and Signal Inspector and the Electrical Fitter will each be supplied with a Key for the padlock on the special Staff, and will be responsible for its custody.

(c) Should it become necessary to remove the special Staff from the Instrument for repairs or for the purpose of transferring it to the Electrical Staff Station at the opposite end of the Section, this must be done by the Electric Fitter only, and as prescribed in the respective Rules (36 and 37) of the Electric Staff System.

**9.** Divided Electric Staffs are provided for use in accordance with the foregoing instructions at the Staff Stations specified hereunder:—

Staff Station at which the Special Staff is normally located.	Intermediate Station for which the Temporary Train Staffs are provided.	Temporary Staff Sections when Temporary Train Staffs are in use.
Kerang ... ..	Lake Charm ... ..	Kerang—Lake Charm and Lake Charm—Lake Boga
Axedale ... ..	Axedale Racecourse ... ..	Axedale—Axedale Racecourse and Axedale Racecourse—Heathcote
North Bendigo Junction	Longlea ... ..	North Bendigo Junction—Longlea and Longlea—Axedale
Echuca ... ..	Echuca Racecourse ... ..	Echuca—Echuca Racecourse and Echuca Racecourse—Tongala
Ebden ... ..	Huon ... ..	Ebden—Huon and Huon—Tallangatta

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### OBTAINING AN ELECTRIC STAFF EARLIER THAN USUAL.

Clause (c), Rule 3, Appendix VII.—Book of Rules and Regulations.

1. When authority is granted for an Electric Staff to be obtained under the special circumstances specified in clause (c) of Rule 3, Appendix VII., the proper Code Signals must be exchanged and the Staff must be withdrawn and dealt with in accordance with the Rules.

2. The Electric Staff withdrawn from the Instrument must be left in the holder of the Instrument until required; if the Signalmen change duty in the meantime, the Signalman relieved must direct the attention of the Signalman who relieves him to the fact of the Staff having been withdrawn, and an entry recording the fact must be made in the Train Register Book, which the Signalman taking charge must initial.

3. **Sub-clause (i.), clause (c), Rule 3, Appendix VII.** — At an Electric Staff Station, where authority is given for a specified train to arrive, or pass through, during the absence from duty of the Signalman, the signalling of the train covered by such authority is to be performed in accordance with the following instructions:—

(i.) "A," "B," and "C" represent 3 Electric Staff Stations, and the appointed hours of duty of the Signalman at "B" are altered to permit of his absence during the time a specified train is running between "A" and "C." Then, provided all the trains which should be signalled between "A," "B," and "C" have passed, and the whole of the Staffs are in their respective instruments, the Signalman at "A" (from which place the specified train will run), must before the Signalman at "B" goes off duty obtain permission from him to withdraw a Staff for the Section "A"—"B," and the Signalman at "B" must (except where "B" is a Terminal Station), in like manner, obtain permission to withdraw a Staff for the Section "B"—"C." The Staff so withdrawn by "B" must be placed in the Staff Exchange Box provided for the purpose.

(ii.) Before leaving, the Signalman at "B" must set and secure the Main Line Points for the proper Road, and he must see that all Scotch Blocks and Hand Points are set for the protection of the Running Line, and secured by padlocks, unless special instructions are issued to the contrary; Plunger-locked Points to be left secured by Plunger and Cotter Pin. The Fixed Signals, applicable to the train to be dealt with under these instructions, must be placed to the Proceed position before the Signalman leaves duty. In the event of trains running out of course, or should a Special train be run, the Signalman at "B" must remain on duty as long as may be necessary for the proper working of the traffic.

(iii.) When the Signalman at "B" resumes duty, he must, provided the Guard has dealt with the Staff in accordance with the special instructions, section (ii.), sub-clause (a), clause 8, page 214, at once advise the Signalman at "A" and "C" of his attendance, insert the Staff in the Instrument, and give the **Train Arrival** signal.

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- (iv.) Should the Signalman at "B" resume duty before the specified train has passed that Station, he must deliver and receive the Staffs and deal with the train in accordance with the ordinary Rules; if the Signalman at the Station in the rear be then in attendance, the **Train Arrival** signal must be sent as prescribed in Rule 12.
- (v.) Should a failure, accident, or obstruction occur whilst the Signalman at "B" is off duty, steps must be taken to acquaint him with the circumstances as soon as possible, in order that he may, if necessary, resume duty.
- (vi.) In some instances provision may be made for the absence of the Signalman at two consecutive Staff Stations, thus:— Of "A," "B," "C," and "D," the Signalman at "B" and "C" will not be on duty during certain appointed hours, and, in such cases, the Signalman at "C" must obtain permission to withdraw a Staff for the Section "C"—"D," and otherwise act as directed for the Signalman at "B."

**Note.**—In the Working Time Table will be found a list of the Stations where the Guard acts as Station-master during certain portions of the day.

**4. Sub-clause (ii.) of clause (c), Rule 3, Appendix VII.**—(a) Where, in order to permit of the Signalman being temporarily absent from duty during a specified period, authority is granted for a Staff to be withdrawn two hours or more before the next train is due, permission for the temporary absence of the Signalman will, in all cases, be subject to the following conditions:—

- (i.) Unless specially authorised, permission must not be given for more than one train to approach at the same time.
- (ii.) Before leaving duty the Signalman must, unless special instructions to the contrary are issued, set and secure the Main Line Points for No. 1 Road, which must be clear, and he must see that all Scotch Blocks and Hand Points are set for the protection of the Running Lines, and secured by padlocks; Plunger-locked Points to be left secured by Plunger and Cotter Pin. The Fixed Signals must be placed to and left at the Stop position, and the Signal-box locked. At Stations where the Fixed Signals are worked from an Interlocked Frame which is not enclosed and cannot be locked against interference, or where the Signals are worked from a quadrant on the platform, and (where specially authorised by the General Superintendent in accordance with sub-clause (i.) hereof) permission has been granted for a train to approach the Station in more than one direction, the levers must be locked in the "Stop" position by means of a padlock; the key of the Signal-box or padlock must be left secured in a safe place.
- (iii.) At night or in foggy weather the Signalman must, before leaving, satisfy himself that the Signals are alight, and showing properly; if booked to be off duty at the time at which the Signals should be lighted (see page 137), he must light the Signals before leaving.

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- (iv.) Unless special instructions are issued to the contrary, the Signalman must, in the case of Passenger or Mixed Trains, be in attendance at least ten (10) minutes before the train for which the Staff is withdrawn is due to leave the Station in the rear, or, in the event of the running time of the Section for the train exceeding 20 minutes, at least 30 minutes before the train is due to arrive at his Station. In the case of Goods Trains, the Signalman must be in attendance at least 15 minutes before the train is due to arrive at his Station. In each case, he must at once advise the Signalman in the rear of his being in attendance.

A note must be made in the Train Register Books stating the time when the Signalman reports in attendance.

- (v.) If the Signalman in the rear should be unable to obtain communication with the Signalman in advance before the train for which the Staff is withdrawn is due to leave, he must, unless special instructions to the contrary are issued, (see sub-clause (iv.)) stop the train, and, before handing the Staff to the Driver, inform him of the circumstances.
- (vi.) In the event of trains running out of course, or should a Special train be run, the Signalman must remain on duty as long as may be necessary for the proper working of the traffic.
- (vii.) Should a failure, accident, or obstruction occur whilst the Signalman is off duty, steps must be taken to acquaint him with the circumstances as soon as possible, in order that he may, if necessary, resume duty.

**5. Sub-clause (iii.), clause (c), Rule 3 — Appendix VII. — An Electric Staff may be withdrawn earlier than usual in accordance with sub-clause (iii.), clause (c), on the following Sections for the trains specified:—**

- (a) All Stations—For any Country Passenger or Mixed Train.
- (i.) Between Sunshine and Serviceton the Staff required for any Interstate Goods Train may be withdrawn as prescribed above.
- (ii.) On the Mansfield Line and between Donald and Mildura the Staff must be withdrawn as prescribed above for any train.
- (iii.) When the interval between trains is less than the period specified in Rule 3, the Staff required must be withdrawn immediately after the Train Arrival Signal for the previous train has been exchanged.

(b) At any Electric Staff or Tablet Station where the interval between the time the Signalman is due on duty and the time of departure of the first train is not sufficient to avoid serious delay in the event of a failure of the Staff or Tablet Instrument, the Staff or Tablet required for the train may, except where otherwise specified, be withdrawn after the previous train due to pass through the Section has been dealt with in accordance with the Rules.

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On Saturdays (if no train be due to run on Sundays) the Staff or Tablet for the first train on Mondays may be similarly withdrawn.

(c) Unless specially authorised, permission must not be given for more than one train to approach at the same time.

### SPECIAL INSTRUCTIONS FOR WORKING AN UNATTENDED SIDING, JUNCTION OR STATION EQUIPPED WITH AN INTERMEDIATE ELECTRIC STAFF INSTRUMENT.

1. These instructions are supplementary to the Rules for Train Signalling on Single Lines of Railway worked under the Electric Train Tablet or Electric Train Staff Block System, and shall be brought into force where specially authorised by the General Superintendent of Transportation; the Rules referred to throughout these instructions mean Rules of Appendix vii., Book of Rules and Regulations.

2. **Description of Apparatus.**—Stations "A" and "C" represent the Electric Staff Stations on the respective sides of "B," the latter being an intermediate Siding, Station or Junction in the Section "A-C." The equipment provided at each place is as follows:—

- (i.) Stations "A" and "C" are equipped with the usual type of Electric Staff Instrument, vide Rule 3, Appendix vii. Special Indicators are, however, provided at "A" and "C"; these Indicators are operated by the Bell Key at the opposite end of Section "A-C," *i.e.*, the Indicator at "A" is energised by the operation of the Bell Key at "C," and *vice versa*.

When all Train Staffs are in the instruments at "A," "B" and "C," the Indicators at "A" and "C" will point to "**Staff In,**" and when a Train Staff has been withdrawn from the instrument at "A," "B" or "C," the Indicators at "A" and "C" will point to "**Staff Out.**"

- (ii.) At "B" an Intermediate Electric Staff Instrument is provided, and this instrument is so interconnected (electrically) with the Staff Instruments at "A" and "C," that only one Train Staff can be withdrawn from the three Staff Instruments, and when a Train Staff has been withdrawn at "A" or "B" or "C" all other Train Staffs at "A," "B" and "C" become secured in their respective Instruments.

The Intermediate Electric Staff Instrument is not equipped with a bell-key or bell; bell signals cannot be sent from "B" on the Electric Staff Instrument. The Staff Instrument is, however, provided with two Galvanometer Needles; these needles work separately by the operation of the respective Bell Keys at "A" and "C."

Telephone communication is provided between "A" and "B," and the employe in charge of operations at "B" must communicate according to requirements with the Signaller at "A."

## BLOCK WORKING INSTRUCTIONS.

At "B" the Points in the Main Running Line are connected by rodding to Safety Points in the Siding or Branch, and fitted with a Staff Lock so that the Points cannot be opened without the Train Staff for the Section "A-C," and the Train Staff cannot be removed from the Staff Lock until the Points have been placed in the position for trains to pass through on the Main Running Line, and secured so as to prevent vehicles passing from the Siding or Branch to, or foul of, the Main Running Line. For directions respecting the working of Staff Locks, see pages 146-150.

- (iii.) All Train Staffs provided at "A," "B" or "C" are labelled and available for the Section "A-C," and any Staff withdrawn for that Section at "A" or "C" must be inserted (according to these Instructions) in the Instrument at "B."

**Phase of Staff Instruments.**—When a Train Staff, which has been withdrawn at "A" or "C," is placed into the instrument at "B," the phase of the Staff Instruments at "A" and "C" shall not be determined by the Red or White segments of the revolving drum, as prescribed on page 665; the phase of these instruments will be disclosed by the Indicators at "A" and "C," which denote whether a Train Staff is "In" or "Out."

**3. Mode of Operation.**—THROUGH TRAIN.—(a) A Through Train (*i.e.*, a train proceeding through the Section from "A" to "C" or from "C" to "A") must be signalled on the Electric Staff Instruments in the ordinary course, as laid down in Rule 3, Appendix vii., and must carry the Staff through the Section "A-C."

(b) THROUGH TRAIN REQUIRING TO SHUNT AT INTERMEDIATE SIDING OR BRANCH "B."—When a train is to proceed (in either direction) through the Section "A-C," and is required to shunt at "B," such train must be dealt with as laid down in clause (d), Rule 10, and clause (b) of Rule 35; in such case, the Trainmen must not interfere in any way with the Staff Instrument at "B," and the Train Staff received at "A" or "C" must be carried through the Section "A-C."

**4. (a) TRAIN REQUIRING TO PROCEED FROM "A" OR "C" AND TO BE WORKED CLEAR OF THE SECTION TO THE SIDING OR BRANCH AT "B."**—When a train is required to proceed from "A" or "C" to the Intermediate Siding or Branch at "B," the Driver must be given the Train Staff for the Section "A-C" in the regular way, but the train must be dealt with as prescribed hereunder:—

- (i.) Prior to the despatch of the train from "A" or "C," as the case may be, the Signaller there, provided he has received the TRAIN ARRIVAL signal for the previous train and permission has not been given for a train to approach in the opposite direction, and no other signal intimating that the Line is not clear has been received or acknowledged, must call the attention of the Signaller in advance ("C" or "A"), and, having obtained it, must send the IS LINE CLEAR FOR TRAIN TO PROCEED TO INTERMEDIATE SIDING

## BLOCK WORKING INSTRUCTIONS.

OR BRANCH signal (2, pause 2, pause 1 beats); if the Line be clear (see Rule 4), the Signalman must acknowledge the signal and give the necessary permission for the train to approach in the manner prescribed in respect of Electric Staff Instruments in Rule 3.

The Guard of a train that requires to be shunted at the Intermediate Siding or Branch at "B" must so instruct the Driver, and before leaving "A" or "C" must have an understanding with the Signalman in respect of his train being scheduled to terminate at "B."

- (ii.) On the arrival of the train at "B" the Driver must hand the Train Staff to his Fireman, and instruct him to unlock and set the Points for the train to proceed into the Siding or Branch, and when the whole of the train has been placed into the Siding or Branch and is inside the Safety Points clear of the Main Line, the Fireman must restore the Points to the normal position, withdraw the Train Staff from the Staff Lock, and hand it to the Guard; the Driver and Guard must satisfy themselves that the Fireman understands the working of the Staff Lock and Points, etc. On receipt of the Train Staff from the Fireman, the Guard must test the Points as prescribed in clause 4, page 148, and if the Points are secure for trains to pass through on the Main Running Line, he must (unless there be a Signalman stationed on duty at "B") place the Train Staff into the Electric Staff Instrument at "B," and at once inform the Signalman at "A" by means of the special telephone, and in accordance with the terms of sub-clause (iii.) hereof.

The Train Staff must not, under any circumstances, be placed into the Staff Instrument at "B" until the whole of the train has been placed on the Siding or Branch, and the Main Running Line is clear.

- (iii.) The telephone advice from the Guard at "B" to the Signalman at "A" must be sent in the following form:—

Train No. . . . . Driver . . . . . has been shunted clear of the Main Line and is inside the Safety Points. The Points in the Main Line have been restored to normal, and locked, and the Electric Staff for the Section "A-C" has been placed into the Staff Instrument at "B."

The Signalman must arrange to be in close attendance and on the alert to receive the telephone message from the Guard; the time at which the message is sent must be entered in the Train Register Books at "A" and "B."

- (iv.) The Signalman at "A," on receipt of the telephone message prescribed in sub-clause (iii.) hereof, must give the TRAIN ARRIVED AT SIDING OR BRANCH AT "B" signal (5 pause, 3 beats), which the Signalman at "C" must acknowledge by repeating, and on the final beat he must continue to hold down the bell-key for a period of five seconds; this will cause the Indicator to point to "Staff In."

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The Signalman at "A" and "C" must carefully observe the Indicators of their instruments, and assure themselves that the Train Staff has been inserted in the instrument at "B," which will be indicated by the Indicator pointing to **"Staff In."** whilst the Bell Key at the Box in advance ("A" or "C") is being held down.

**5. DESPATCHING A TRAIN FROM INTERMEDIATE SIDING OR BRANCH AT "B."**—(a) When a train is quite ready to proceed from the intermediate Siding or Branch at "B" the Guard must (unless there be a Signalman on duty at "B") communicate with the Signalman at "A" by giving **ONE LONG RING** on the telephone, and on gaining attention he must ask for permission to withdraw a Staff for the train to proceed to "A" or "C," as the circumstances may require.

(b) If the train be required to proceed from "B" to "A" the Signalman at "A," on receipt of the telephone communication from the Guard at "B," must, provided he has received the **TRAIN ARRIVAL** signal for the previous train, and permission has not been given for a train to approach in the opposite direction, and no other signal intimating that the Line is not clear has been received or acknowledged, call the attention of the Signalman at "C," and having obtained it must send the **IS LINE CLEAR FOR TRAIN TO PROCEED FROM INTERMEDIATE SIDING OR BRANCH "B" TO "A"** signal (4 pause, 2 beats) to the Signalman at "C," and if the Line be clear in accordance with Rule 4, the Signalman at "C" must acknowledge the signal, and give the necessary permission for a Staff to be withdrawn in the manner prescribed in Rule 3. On receipt of the acknowledgment of the 4-2 signal, the Signalman at "A" must notify the Guard by giving **TWO LONG RINGS** on the telephone, which will indicate that he is about to give permission for the Guard to withdraw a Staff at "B"; the Signalmen at "A" and "C" must hold down the Bell Keys until the Galvanometer needle of their respective Instruments returns to the normal (vertical) position.

The Guard of the train at "B," on receipt of the **TWO LONG RINGS**, and whilst "A" and "C" are depressing their Bell Keys, must raise and hold the Train Staff against the drum of the Instrument; this will cause the Galvanometer Needles at "B" to deflect, and when both needles are deflected in the same direction (to the right or left) the Staff may be removed from the Instrument, after which he must turn the Indicator hard over to the **"Staff Out"** position, and at once notify the Signalman at "A" by telephone that the Staff has been withdrawn from the Instrument at "B."

If, whilst the Guard is holding the Train Staff against the drum, both Galvanometer Needles be not deflected in the same direction, he must at once communicate the circumstances to the Signalman at "A."

(c) When the Guard has withdrawn the Staff at "B" he must insert it in the Staff Lock, release and set the Points for his train to proceed from the Siding or Branch to the Main Running Line, after which he must restore the Points to the normal position, remove the Staff from the Staff Lock, and, after testing the Points, hand the Train Staff to the Driver; the Driver must not proceed on his journey until he receives the



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Train Staff for the Section "A-C." On the arrival of the train at "A," the Staff must be delivered to the Signaller, who must place it in the Instrument, and, subject to the conditions of Rule 12, send the TRAIN ARRIVAL signal.

The Guard must enter in the Train Register Book at "B" the time of arrival at and the departure from "B," and also the distinguishing number of the Electric Staff used.

(d) In the case of the train requiring to proceed from the Intermediate Siding or Branch to "C," this must be done in accordance with the directions laid down in clause (b) for a train proceeding from "B" to "A," with the exception that IS LINE CLEAR FOR A TRAIN TO PROCEED FROM "B" to "C" signal (4 pause, 3 beats) must be sent to the Signaller at "C" by the Signaller at "A."

**6. FAILURE OF TELEPHONE COMMUNICATION OR INTERMEDIATE STAFF INSTRUMENT AT "B."**—(a) If, when a train has been shunted clear of the Main Running Line at the Intermediate Siding or Branch and the Train Staff has been inserted in the Intermediate Staff Instrument, the Guard should be unable to communicate with the Signaller at "A," the Guard, after an interval of not less than 15 minutes (during which period he must constantly endeavour to gain communication), must proceed by the most expeditious means to "A" and inform the Signaller of the failure. On receipt of intimation of the failure the Signaller at "A" must communicate the circumstances to the Signaller at "C," and both Signallers, by depressing the Bell Keys (alternately), must carefully observe their respective Indicator, and if both indicate that the Train Staff last issued for the Section "A-C" has been inserted in the Instrument at "B," the Signaller at "A" must obtain from the Guard a Written Order in the terms of the message referred to in sub-section (iii.) of clause 4 hereof, and trains may then be signalled in the ordinary course between "A" and "C."

The Signaller at "A" may, provided no other train shall be delayed thereby, withdraw a Train Staff and hand it to the Guard to convey to "B" for the purpose of permitting the train to proceed from "B" to "A" or "C," as the case may be; see clause (b) hereof.

(b) If, when a train is ready to leave the Intermediate Siding or Branch at "B," the Guard should be unable to communicate with "A," or, if having gained communication, the Guard be unable to withdraw a Staff from the Intermediate Staff Instrument, he must proceed by the most expeditious means to "A" and inform the Signaller of the failure; the Signaller at "A" must communicate the circumstances to the Signaller at "C," and, subject to the conditions governing the sending of the "Is Line Clear Signal," withdraw a Staff under the 4-2 or 4-3 Signal, as the case may require (see clause 5), and hand the Train Staff to the Guard for the purpose of permitting the train to be despatched from the Siding or Branch at "B."

(c) When, during a failure of the Instruments at "B," a train is required to proceed from "A" or "C" to the Intermediate Siding or Branch at "B" and the Staff Instruments at "A" and "C" are in working order, a Staff may be withdrawn in accordance with Rule 10 or Rule 18, as the

## BLOCK WORKING INSTRUCTIONS.

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circumstances may require, and in such case the Signaller handing the Staff to the Driver must instruct him that, except as provided in Rule 35, the Driver must retain possession of the Train Staff until he has arrived at the opposite end of the Section or returned to the Station where he received the Staff.

If, however, other trains are likely to be delayed by the Driver retaining possession of the Train Staff (under Rule 10 or 18) whilst at work at the Intermediate Siding or Branch at "B," arrangements must be made for an employe to proceed from "A" or "C" to receive the Train Staff from the Guard at "B," and convey it to the Signaller at the most convenient end of the Section. The Enginemen must not hand the Train Staff to the Guard until the train has been placed clear of the Safety Points in the Siding, and, before handing the Train Staff to the employe authorised to convey it to the Signaller, the Guard must see that the Main Line is clear, and that the Points are tested and secured for the Main Running Line.

**7. FAILURE OF STAFF APPARATUS AT "A" OR "C."**—In the event of the failure of the Staff communication between "A" and "C," arrangements must be made in accordance with Rule 27 for the working of traffic over that Section by means of a Pilotman.

(b) Unless the Pilotman be in possession of a Staff for the Section "A-C," trains proceeding from "A" or "C" to the Intermediate Siding or Branch at "B" must be dealt with in accordance with sub-clause (iii.), clause (a), Rule 27.

(c) After Pilot-working has commenced, permission must not be given for a Staff to be withdrawn at "B" until Pilot-working has been cancelled and ordinary working has been resumed, as laid down in Rule 27.

**8.** In the event of an engine failing whilst in the Siding or Branch "B," the Relief engine must be obtained by the Guard; the Relief engine must be worked from "A" or "C" to "B," in accordance with clause 4.

**9.** If, owing to failure of instrument or failure of engine, a Train Staff has been left in the instrument at "B," the Electrical Fitter must (except where instructions are issued to the contrary) be advised, and arrangements must be made to transfer the Staff to "A" or "C"; this must be done when no Staff is out of the instruments.

**10. BALANCING OF STAFFS ACCUMULATING AT "B" (Rule 37).**—Whenever it is necessary for the Fitter to transfer one or more Staffs from the Instrument at "B," he must first confer with the Signaller at "A" and have a clear understanding respecting the total number of Staffs then at, and the number to be left in, the Instrument at, "B." On his arrival at "B" the Fitter must test the Instrument by withdrawing a Staff in the regular way; he must then replace such Staff and at once inform the Signaller that a Staff has been withdrawn from and replaced into the Instrument. The Fitter may then remove the Staff or Staffs as previously arranged with the Signaller, after which he must request the Signaller to test the Instruments, and he must not leave "B" until the Signaller has intimated that a Staff has been withdrawn for the Section "A-C."

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**11.** An Intermediate Electric Staff Instrument is provided for use in accordance with the foregoing instructions, at the places specified hereunder:—

Branch Line or Siding.	* Staff Station "A"	* Staff Station "C"
North Shore Sidings . . . . .	Box "A," North Geelong.	Corio (see also pages 758-760)
State Rivers and Water Supply Department's Siding; see page 797	Springhurst	Chiltern
Herne's Oak; see pages 811-812 ..	Moe	Morwell
Mayfield's Sand Co.'s Siding; see pages 816-817 . . . . .	Cranbourne	Clyde

\* See clause 2.

### FOULING THE RUNNING LINE INSIDE OR OUTSIDE THE HOME SIGNAL.

**1.** No train must be allowed to foul any Running Line either **Inside** or **Outside** the Home Signal without the authority, permission, or instruction of the Signaller, and in any case where it is necessary, such authority, permission, or instruction, subject to the Rules and Regulations and to such other Instructions as may be in force, shall, except where otherwise provided, be given as shown under:—

- (a) Where Fixed Signals are provided—by the exhibition of the proper Fixed Signal.
- (b) Where Fixed Signals are not provided—when the Driver is verbally instructed to do so by the Signaller.

**2.** The Signaller when giving the verbal instructions must satisfy himself that the Driver clearly understands whether the Running Line is to be fouled **Inside** or **Outside** the Home Signal, and after the Driver has been instructed, the Signaller will be responsible for seeing that no conflicting movement is allowed until the Line is again clear.

**3.** Unless otherwise directed by the Signaller, the verbal instruction to the Driver, when once given, will hold good until such time as the shunting operations in connection with the work then in hand have been completed.

**4.** At certain authorised places where the employe who works the Fixed Signals does not also work the Signalling Instruments, he must not give any authority, permission or instruction for the Running Line to be fouled either **Inside** or **Outside** the Home Signal without first obtaining permission from the person in charge of the Signalling Instruments.

**5. Sub-clause (ii.) clause (c) Rule (15). Appendices VI. and VII.—** The Signaller must see that the train travelling away from the Station at which the shunting operations have to be performed has proceeded

## BLOCK WORKING INSTRUCTIONS.

a sufficient distance and is outside the Distant Signal (where a Distant Signal is provided) before permitting the shunting operations outside the Home Signal or (where Signals are not provided) outside the outer Facing Points; see also sub-clause (d), clause 7, page 553, of this book.

### OBTAINING AN ELECTRIC STAFF OR TABLET FOR STATION WORK.

#### (Rule 18, Appendix vii.)

1. At an Electric Staff Station (say "A"), when it is known that it will be necessary to foul the Line outside the Home Signal for Station work at a time when the Signaller at the Staff Station at the other end of the Section (say "B"), will not be on duty, and that consequently it will not be possible to exchange the **Blocking Back** Signal as required by No. 15 of the Electric Staff Rules (Appendix VII., Book of Rules and Regulations), a Staff may be obtained under the **Release Tablet or Staff for Shunting** Signal (see Rule 18), before the time arrives for the Signaller at "B" to leave duty. **In every case in which the above course is followed, it must be at once reported unless special authority for such operations has been given by the General Superintendent.**

2. The Staff so obtained must be left in the holder of the instrument until it is required, and must be replaced in the instrument in accordance with Rule 18, when an intimation is received from the Signaller at "B" that he has commenced duty, provided that the shunting has then been completed and that the Single Line is again clear.

3. The Staff withdrawn under Rule 18 must not, after it has been replaced, be the next Staff taken out of the instrument.

4. In the event of the Signaller who obtained the Staff at "A" leaving duty while the Staff is out of the instrument, he must draw the attention of the Signaller by whom he is relieved to the fact.

5. The time at which the Staff was withdrawn and replaced, and the reason for which it was required, must be entered in the Train Register Books.

6. Permission to withdraw an Electric Staff for shunting purposes in accordance with these instructions has been given at the undermentioned Stations:—

Station.	Section.	Station.	Section.
Swan Hill ...	Lake Boga	Portland North ..	Portland
North Bendigo Junctn. ...	Axedale	Portland (see page 781) ...	Portland North
North Ballarat ...	Waubra Junction	Mangalore ...	Tabilk
Ararat ...	Langi Logan	Wodonga "B" Box	Ebden
Serviceton ...	Kaniva	Warragul ...	Darnum
Langi Logan ...	Maroona	Moe ...	Trafalgar
North Geelong "A" Box	Corio	Traralgon	Rosedale
North Geelong "C" ...	Moorabool	Leongatha ...	Glengarry
Geelong "B" Box ...	South Geelong	Newport ...	Stony Creek
South Geelong ...	Drysdale	Newport ...	Newport—Sunshine
Gheringhap ...	Inverleigh	Ringwood ...	Loop
Hamilton ...	Coleraine Junction	Frankston ...	Bayswater
			Baxter

*Note.—See Special Instructions, pages 803-804 in reference to Murray Bridge at Tocumwal.*

## BLOCK WORKING INSTRUCTIONS.

### CODE OF BELL SIGNALS, APPENDICES IV., V., VI., AND VII.

1. At any Signal-box where Electric Bell communication is provided, it must be used, instead of the Block Instrument, to call attention, when the use of the Telephone is required.

Suburban Parcel Coaches must be signalled on the Block Instruments as ordinary Passenger Trains; where Electric Bells are not provided or (where provided) are out of order, the Signalman in advance must be advised when a Parcels Coach is running out of course, and in the case of an electrically hauled Goods Train the Signalman in advance must be advised of the character of the train. (See note 5, page 709).

2. (a) Except as shown hereunder, Passenger trains are not to be signalled as "**Fast**" or "**Express**" unless they are so described in the Working Time-table or in the Special Train Notice issued in connection with their running.

(b) The Hospital Car, when proceeding to, or returning with injured persons from an accident, must be signalled as a Fast Passenger train and given precedence over all other trains. The Steam Crane, when proceeding to the scene of any accident, must be signalled and dealt with in the same way as a Break-down Van train. (See instructions respecting Break-down Van trains, page 31.)

(c) When the Break-down Van Train is returning from the scene of an accident, it must be signalled as a Fast Goods train and given preference over all other Goods trains. If, however, the Break-down Van Train or Steam Crane is proceeding to the scene of another accident, it must be signalled as a Fast Passenger train, as prescribed in the Bell Code.

3. When sending the **Is Line Clear?** signal on the Block, Tablet, or Electric Staff Instrument, only those Goods trains that are time tabled as "**Fast**" are to be signalled as such.

Trains consisting of empty passenger stock (empty Race Trains and scheduled Suburban trains excepted) are, unless instructions are issued to the contrary, to be signalled as **Fast Goods trains**. Where Electric Bells are provided, the Passenger train rings are to be given for trains consisting of empty passenger stock. Where Electric Bells are not provided, the Signalman in advance must be advised on the telephone that the train consists of empty passenger stock.

Any Goods trains, with car attached, by which passengers are conveyed, must be signalled by the "3 pause 1" signal in the same way as an ordinary Passenger or Mixed train.

### TRAIN AN UNUSUALLY LONG TIME IN SECTION.

1. (a) Should an unusually long time elapse after the departure of a train into a Section without the **Train Arrival** signal for it being received, the Signalman at the Box in the rear must not consider that the

## BLOCK WORKING INSTRUCTIONS.

Signalman at the Box in advance has omitted to send the **Train Arrival** signal, nor that there has been any failure of the Instruments or Bells. If a train be waiting to follow, the Signalman at the Box in the rear must send the **Train Waiting** signal, and if that signal be not acknowledged, or if acknowledged and the **Train Arrival** signal be not then received, he must assume that the train is stopped in the Section.

(b) If the delay continue, the Signalman at the Box in the rear must communicate with the Signalman at the Box in advance, and endeavour to obtain definite information as to the cause of the delay. The mode of communication, however, must be strictly confined to the messages sent on Form "A" and received on Form "B." See Specimen Forms at end of this instruction.

*NOTE.*—It will not be necessary to send this message when the Signalman in the rear is aware that the train is stopped in the Section or engaged in Shunting operations at the Station ahead; but in every such case the **Train Waiting Signal must be sent, and the Rules and Regulations must be complied with.**

2. Should the **Train Arrival** signal for the train that has been delayed be received after the message has been sent on Form "A," then the Signalman at the Box in the rear must not send the **Is Line Clear?** signal, even though a train be waiting, until he has received a reply on Form "B."

Even if no train be waiting to proceed, the messages must be exchanged.

3. If, after commencing inquiries as to the cause of the delay, the Signalman at the Box in the rear receive information to the effect that the train has become disabled, he must arrange for assistance, to be provided in the way laid down in the Rules and Regulations.

4. Before replying to message "A" the Signalman at the Box in advance must refer to his Train Register Book, and if he be in doubt regarding the train, he must, if necessary, communicate with the Signalman further forward, in order to make sure of its location.

5. The "A" and "B" messages must be filled in by the Signalmen at the respective Boxes, and transmitted on the Morse Telegraph Instrument by the Station-master or person in charge of the Station; where Morse Telegraph Instruments are not available, the Telephone may be used by the Signalman, Station-master or person in charge; see instructions for use of Telephones, page 141.

6. Both messages, together with a special report of the circumstances, must afterwards be forwarded to the Block and Signa Inspector.

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*Forms referred to in foregoing instruction.*

*To be printed on Red colored Paper.*

T.R. 21A	<b>VICTORIAN RAILWAYS.</b> <hr style="width: 20%; margin: auto;"/>
<b><u>TRAIN AN UNUSUALLY LONG TIME IN A SECTION.</u></b>	
Form referred to in the Special Instructions under above heading in the General Appendix to the Book of Rules and Regulations :—	
<b><u>MESSAGE "A."</u></b>	
DATE _____ 19	
To SIGNALMAN AT _____	
Do you know why the train which you accepted at _____ h., _____ m., and which left here at _____ h., _____ m., has not been signalled as having arrived at yours.	
_____ SIGNALMAN.	
_____ SIGNAL-BOX.	
_____ TIME.	
A supply of these Forms must be kept in a convenient place at the Signal-box.	

*To be printed on Blue colored Paper.*

T.R. 21B	<b>VICTORIAN RAILWAYS.</b> <hr style="width: 20%; margin: auto;"/>
<b><u>TRAIN AN UNUSUALLY LONG TIME IN A SECTION.</u></b>	
Form referred to in the Special Instructions under above heading in the General Appendix to the Book of Rules and Regulations :—	
<b><u>MESSAGE "B."</u></b>	
DATE _____ 19	
To SIGNALMAN AT _____	
In reply to your message regarding train which I accepted at _____ and for which you sent the "Train Departure" signal at _____	
_____ SIGNALMAN.	
_____ SIGNAL-BOX.	
_____ TIME.	
A supply of these Forms must be kept in a convenient place at the Signal-box.	

## BLOCK WORKING INSTRUCTIONS.

**RULE 4.—APPENDICES IV., V., VI., AND VII.**

**Rule 4, Appendices IV., V., VI., and VII.**—At any Station or Junction where there are two or more Home Signals applying in the same direction, the “quarter of a mile beyond the Home Signal” referred to in Rule 4, must be understood to mean a quarter of a mile beyond the outer **Home Signal**.

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**LINE CLEAR OR GIVING PERMISSION FOR A TRAIN TO APPROACH.—(Rule 4, Appendices IV. and V.)**

On the Up or Down Line, as specified for the places shown hereunder, the Line must not be considered clear, nor must the **Is Line Clear?** signal be accepted from the Box in the rear until the preceding train has passed the Home Signal, **and is proceeding on its journey past the Starting Signal, or the Advanced Starting Signal**—where Advanced Starting Signals are provided—nor until all the Points necessary for the safety of the approaching train have been placed in their proper position, and the Line is clear to the Starting Signal, or, where Advanced Starting Signals are provided, to the Advanced Starting Signal.

**UP LINE.**

Harcourt  
Lethbridge

Footscray Jct. (both Up Lines)  
Royal Park

**DOWN LINE.**

Kangaroo Flat

Kilmore East.

**MODIFICATIONS OF RULE 4.**

**Newport Box “A.”**—At Box “A,” Newport, the **Is Line Clear?** signal for a Down train may be accepted, in accordance with Rule 3, provided the Line be clear to Post 36. After permission has been given for the train to approach, in accordance with Rule 3, no obstruction of the Down Line must be allowed until the train has been brought to a stand at the Home Signal protecting the platform, or has arrived at the platform, or the Cancelling Signal has been received from the Box in the rear.

**Footscray “B” Box.**—At Footscray “B” Box the **Is Line Clear?** Signal may be accepted in accordance with Rule 3 for an Up train provided the Line be clear as far as Post No. 16. After permission has been given for a train to approach in accordance with Rule 3, no obstruction of the Line on which such train requires to run must be allowed until the train has been brought to a stand at the Home Signal (Post No. 18) or the Cancelling Signal has been received from the Signal-box in the rear.

**Coburg.**—At Coburg, the **Is Line Clear?** signal may be accepted, in accordance with Rule 3, for a **Down** train, provided the Line be clear in No. 1 or No. 2 Road as far as Post No. 45, and the Points set for the Clear Road. After permission has been given for a train to approach in accordance with Rule 3, no obstruction of the Line for which the Signalman has set the Points must be allowed until the train has been brought



## BLOCK WORKING INSTRUCTIONS.

to a stand at the Home Signal (Post No. 42), or has arrived in the Station Yard, or the **Cancelling** signal has been received from the Signal-box in the rear.

*Merri.* — At Merri, the **Is Line Clear?** Signal may be accepted for an Up train, in accordance with Rule 3, provided the preceding train has passed Post No. 45, and is proceeding on its journey.

**Port Melbourne "A" Box.**—At Port Melbourne "A" (Port Melbourne Station) Box the **Is Line Clear?** signal may be accepted, in accordance with Rule 3, provided the Line be clear as far as the Home Signal at Down end of No. 1 Road. After permission has been given for a train to approach in accordance with Rule 3, no obstruction of No. 1 Road must be allowed until the train has been brought to a stand at the Home Signal protecting the platform, or has arrived at the platform or the **Cancelling** signal has been received from the Signal-box in the rear.

**Oakleigh.**—At Oakleigh "B" Box the **Is Line Clear?** signal may be accepted, in accordance with Rule 3, for an **Up** train provided the Line be clear as far as Post No. 8 for No. 4 Road, or as far as Post No. 7 for Nos. 2 or 3 Roads and the Points are set for the clear line. After permission has been given for a train to approach, in accordance with Rule 3, no obstruction of the Line for which the Signaller has set the Points must be allowed until the train has been brought to a stand at the Home Signal (Post No. 13), or has arrived in the Station Yard, or the **Cancelling** Signal has been received from the Signal-box in the rear.

**Mentone.**—At Mentone the **Is Line Clear?** Signal may be accepted for an Up train, in accordance with Rule 3, provided the Line be clear as far as Post No. 4. After permission has been given for a train to approach in accordance with Rule 3, no obstruction of the Up Platform Road to which Line Clear has been given must be allowed until the train has been brought to a stand at Post No. 8, or the **Cancelling** Signal has been received from the Signal-box in the rear.

**Mordialloc.**—At Mordialloc, in clear weather, the **Is Line Clear?** signal may be accepted, in accordance with Rule 3, for a Down train provided the Line in No. 1, 2, or 3 Road be clear as far as Post No. 7, 6, or 5, according to whichever Road it is intended to admit the approaching train, and all the Points over which such train has to pass have been set for the clear Road. After permission has been given for a train to approach in accordance with Rule 3, no obstruction of the Line for which the Signaller has set the Points must be allowed until the train has been brought to a stand at the Home Signal (Post 2), or has arrived in the Station Yard, or the **Cancelling** signal has been received from the Signal-box in the rear.

**North Geelong Box "A."**—(a) Except as shown in clause (b) hereof, the Signaller at North Geelong "A" must not accept the **Is Line Clear?** Signal from Corio and North Geelong "B" Box at the same time. In the event of the **Is Line Clear?** Signal being received from Corio after permission has been given for an Up train to approach from North Geelong "B," the Up train must be brought to a stand at the Home Signal before the **Is Line Clear?** Signal is accepted from Corio. Down trains from Corio must have passed clear of the Junction before permission is given for an Up train to approach from North Geelong "B."

## BLOCK WORKING INSTRUCTIONS.

(b) In clear weather only the Signalman at North Geelong "A" may accept the **Is Line Clear?** Signal from North Geelong "B" for a Light Engine while the Staff is released at North Shore, and Engines worked to the Goods Yard must be turned towards the Harbour Trust Sidings for this to be done.

**North Geelong Box "C."**—(a) The Signalman at North Geelong "C" must not accept **Is Line Clear?** Signal from Moorabool and North Geelong "B" Box at the same time. In the event of the **Is Line Clear?** Signal being received from Moorabool after permission has been given for a Down train to approach from North Geelong "B," the Down train must be brought to a stand at the Home Signal before the **Is Line Clear?** Signal is accepted from Moorabool.

(b) Up trains from Moorabool must have passed clear of the Junction before permission is given for a Down train to approach from North Geelong "B."

**Mangalore.**—(a) At Mangalore the **Is Line Clear?** Signal may be accepted in accordance with Rule 3, for a Down train, provided the Line be clear as far as Post No. 7 on the Main Line, or Post No. 11 on the Branch Line, and the Points set for the Clear Road. After permission has been given for a train to approach, in accordance with Rule 3, no obstruction of the Line for which the Signalman has set the Points must be allowed until the train has been brought to a stand at the Home Signal (Post No. 4), or has arrived in the Station Yard, or the **Cancelling** Signal has been received from the Signal-box in the rear.

(b) An Up and a Down North-Eastern Line train may be allowed to approach Mangalore at the same time, but in any such case, the Down train must be brought to a stand at the Down Home Signal (Post No. 4) before being allowed to proceed to the platform, unless the Up train has already arrived and is clear of the Down Line.

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### SECTION CLEAR BUT STATION OR JUNCTION BLOCKED SIGNAL.—Rule 6, Appendices IV. and V.

Hereunder is a list of the places where the sending of the **Section Clear but Station or Junction Blocked** signal is authorised, and the class of trains to which it applies. In this instruction the words "**All Ordinary trains**" include Special trains but **not Express or Fast trains** unless timed to stop.

In order to avoid unnecessary checks the Signalman who sends this Signal should, whenever practicable, have the obstruction removed before the Trainmen running under the "**Warning Arrangement**" will sight the Distant Signal.

#### Place and Class of Train.

**BANNOCKBURN**—Up Goods train when the Up Line inside the Home Signal is not occupied by a train conveying passengers, and when "**Line Clear**" has not been given to Gheringhap for a Down train conveying passengers.

**CARRUM**—Up Goods train that is required to perform shunting operations at the Crystal Sand Coy's Siding, between Seaford and Carrum; these trains must be signalled as prescribed in Rule 10, page 290, Book of Rules and Regulations.

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**LAL LAL**—Up Goods train when no train conveying passengers is within the prescribed distance of 440 yards ahead of the Up Home Signal.

**MEREDITH**—Up Goods train when no train conveying passengers is within the prescribed distance of 440 yards ahead of the Up Home Signal.

Down Goods train when no train conveying passengers is within the prescribed distance of 440 yards ahead of the Down Home Signal.

**TALLAROOK**—Down Goods trains that are required to work at McDougall; between Broadford and Tallarook these trains must be signalled as prescribed in Block Rule 10.

**WILLIAMSTOWN**—Down train when the Line is clear to the Fixed Signal at the Down end of the Passenger platform, and subject to the condition that the Line is kept clear until the train which has been accepted under the "Warning Arrangement" has been brought to a stand at the Home Signal, or has arrived at the Station, or has passed into the Section in advance, or into the Goods Yard, or the **Cancelling** Signal has been received from the Signal-box in the rear.

### BLOCK TERMINAL STATIONS.

#### Rule 4, Clause (d), Appendices IV. and V.

1. In addition to Terminal dead-end Stations, the Stations specified below are to be treated as Terminal Stations:—

2. Except in the case of the places marked with an asterisk (\*), the Terminal conditions will not apply during foggy weather.

REFERENCES—(d) Indicates Down Line only.

(u) Indicates Up Line only.

Bendigo "A" Box	Gisborne (d)	Reservoir*
Bendigo "B" and "C" Boxes (*)	Glen Huntly (u)	Riddell (d)
Beveridge	Glenroy (d)	Ringwood*
Box Hill (d)	Harcourt (d)	Royal Park (d)
Broadford	Heathcote Junction	Sandown Park (u)
Broadmeadows	Kangaroo Flat (u)	Seymour "B" Box*
Carlsruhe	Kilmore East (u)	St. Albans (d)
Cheltenham (u)	Kyneton (u)	South Brunswick (d)
Chewton (u)	Lethbridge (d)	Spring Vale (u)
Clayton (u)	Macedon (d)	Sunbury
Clarkefield (d)	Malmsbury (u)	Surrey Hills (d)
Craigieburn (d)	Meredith (d)	Sydenham (d)
Dandenong*	Mitcham	Tallarook (d)
Digger's Rest (d)	Mont Albert	Taradale (u)
Donnybrook (d)	Moorabbin (u)	Thornbury (d)
Elaine (d)	Mordialloc (u)	Tunstall (d)
Elphinstone (d)	Moreland (d)	Wallan (u)
Flemington Bridge (d)	Newport, Box A (u)	Wandong (u)
Footscray Junction (d)	Northcote (d)	Warrenheip
Frankston (d)*	Ormond (u)	West Footscray (d)
Geelong	Regent (d)	Woodend
	Redesdale Junction	

## BLOCK WORKING INSTRUCTIONS.

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**3.** During clear weather only, in addition to the above list, all Double Line Block Posts are to be treated as Terminals and "Line Clear" accepted in accordance with clause (d) of Rule 4, Appendix IV., Book of Rules and Regulations, for Light Engines, engines with only a Brake-van attached, and Rail Motor Inspection Cars.

Before sending the "Is Line Clear?" Signal the Signalman in the rear must inform the Signalman in advance when the train is one of those set out in clause 3; each Signalman must record the message in the Train Register Book and enter the time it is sent or received.

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### NORTH-EASTERN LINE, FAILURE OF BLOCK INSTRUMENTS.

When, owing to a failure of Block Instruments on the North-Eastern Line, it becomes necessary to caution the Guard of the Sydney Express, or any other train on which the Conductor is acting as Rear Guard (see pages 366-368), the Signalman must, in addition to advising the Driver and Guard, also inform such Conductor of the circumstances.

These instructions will apply on Single Line as well as Double Line Sections; at Staff Stations, in the event of the Pilotman not accompanying the train, he must advise the Conductor who is acting as Rear Guard that another train is to follow.

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### WHEN SIGNALMAN AT BOX IN ADVANCE IS NOT IN ATTENDANCE FOR FIRST TRAIN IN MORNING.

**1. Appendices IV., V., and VI.**—In Sections where the Block Telegraph or Electric Lock and Block system of train signalling is in operation, should the Signalman at the Box in advance not be in attendance to reply to the **Is Line Clear?** signal for the first train in the morning, and the **Train Arrival** signal for the preceding train has been duly received, the Driver and Guard must be advised of the circumstances, and the Driver instructed to proceed cautiously to the Home Signal of the Block Signal-box in advance, **but no further unless such Home Signal is in the Proceed position**, in which case the train may be drawn forward to the platform. The Driver must not, however, pass into the next Section in advance unless he is in possession of written instructions, from the Signalman at the Signal-box where he has arrived, authorising him to do so. In such a case the order must be delivered to the Signalman at the Box in advance.

**2.** A second train must not be allowed to follow, nor must the **Is Line Clear?** signal be given for a second train until the **Train Arrival** signal for the first train has been received. In Sections worked under the Lock and Block System of train signalling, the Driver of the first train may pass the Starting or Advanced Starting Signal at the Stop position upon being directed to do so by the Signalman.

**3.** On Single Lines where trains are signalled under the Block Telegraph System, this instruction must not in any way affect the Rules of the Train Staff and Ticket System, which must be strictly carried out.

## BLOCK WORKING INSTRUCTIONS.

### WORKING OF RETURN BANK ENGINES ON ELECTRIC STAFF SECTIONS.

Rule 38 of Appendix VII., Book of Rules and Regulations, is in force at the undermentioned places:—

- Between St. Arnaud and "Stop Board," near 160 mile post.
- Between Woomelang and Stop Board, at 240 miles 40 chains.
- Between Stawell and "Stop Board," at 148 miles 57 chains.
- Dimboola to Stop Board, at 220 $\frac{3}{4}$  miles. Bank engine to run coupled.
- Between Geelong "B" Box and the Limit Post, at the Up Distant Signal.
- Between Hamilton and "Stop Board," at 193 $\frac{1}{2}$  miles. Bank engine to run coupled.
- Between Lilydale and "Stop Board," at 22 miles 20 chains.

Bank engines may be employed only over those Sections where specially authorised. See further instruction, pages 332-341.

### ELECTRIC STAFF AND TABLET INSTRUMENTS.

1. If, when withdrawing or inserting an Electric Staff, the drum of the instrument does not revolve far enough to allow the locks to fall clear, the Bell Key may be prevented from working properly. This trouble, however, can be overcome by lifting a Staff into the slot and pressing it gently against the connections of the drum, as in the process of withdrawing a Staff.

2. (a) **Phase of Electric Staff Instrument.**—The revolving drum of the Electric Staff Instrument shows the phase of the Instrument by its segments being coloured Red and White alternately. In the event of a Signaller being unable to withdraw a Staff, it may be that the last Staff used may not have been restored to the Instrument; if the Instrument at one end of the Section shows the Red phase, and the Instrument at the other end shows the White phase, then the Staff last withdrawn has not been replaced.

(b) **Phase of Tablet Instruments.**—To show the phase of a Tablet Instrument, a metal plate divided into sectors and coloured alternately is provided. The Pointer which indicates the number of Tablets in the Instrument also indicates the phase; in the event of any failure the phase of the respective Instruments should be compared in order to make sure that the last Tablet used has been duly replaced.

3. **Order of Issuing Electric Staffs.**—As far as is reasonably practicable, Signallers should issue the Electric Staffs in the order of their distinguishing numbers. When a Staff is restored to the Instrument, either in accordance with Rule 18 or 20, it should be placed in the column below the Staff that would in the ordinary course be the next one to be withdrawn. This is to ensure that the same Staff shall not again be used without being repassed through the Instrument.

4. **Lightning Arresters.**—(a) Under no circumstances should the Lightning Arresters on Staff, Tablet, or Block Instruments be interfered with by any person other than the Electrical Fitter responsible for the maintenance of the apparatus.

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(b) When due to Lightning or other cause, a Lightning Arrester becomes fused, the Electrical Fitter must be at once advised of the circumstances.

(c) Care must be taken to prevent any foreign substance making connection with the Contacts of the Lightning Arrester, which must not be used for any purpose other than that for which it is provided.

### EXAMINING OR CLEANING INSTRUMENTS.

5. (a) When examining or cleaning a Tablet or Staff Instrument, the inspecting employe must not leave the Instrument open, or leave a Tablet or Staff out of the Instrument.

(b) The Signaller must always give the **Testing** signal, withdrawing a Tablet or Staff as prescribed in Rule 29, Appendix **vii.**, before the Instruments are examined or cleaned, and the Electrical Fitter must not allow the Signaller to withdraw a Tablet or Staff or to give permission for one to be withdrawn until the **Testing signal** has again been given and acknowledged.

The same course must be followed before and after a damaged Tablet or Staff is removed, and also before and after a Tablet or Staff that has been repaired is replaced in the Instrument; a record to be made in the Train Register Book of each Tablet or Staff withdrawn or replaced.

(c) An employe of any Branch is not permitted to manipulate the Instrument for the purpose of allowing a Tablet or Staff to be withdrawn for train working purposes.

## SPECIAL INSTRUCTIONS FOR SUSPENSION OF THE ELECTRIC TRAIN TABLET OR ELECTRIC TRAIN STAFF BLOCK SYSTEM AND THE ISSUE OF PROCEED ORDERS.

### (Rule 27, Clause (a), Appendix VII.)

*Definition.*—When used in these instructions, the word “Rule” or “Rules” shall mean Rule or Rules of Appendix VII., Book of Rules and Regulations.

1. The use of Proceed Orders on Lines worked under the above-named system, is hereby authorised for the purpose of facilitating the establishing of arrangements for Working by Pilotman in the event of:—

- (a) Failure of Staff Apparatus;
- (b) The Staff or Bank Engine Key being broken or damaged or Bank Engine Key lost;
- (c) The Staff being lost; or
- (d) The Staff being overcarried beyond its Section;

and in connection therewith clause (a), Rule 27, Appendix (vii.), pages 420-423 of the Book of Rules and Regulations is amplified by the supplementary instructions hereunder:—

2. (a) In the circumstances referred to above, viz.:—(a) Failure of Staff Apparatus; (b) A Staff or Bank Engine Key being broken or damaged or Bank Engine Key lost; (c) the Staff being lost; or (d) the

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Staff being overcarried beyond its section, the arrangements for working by Pilotman must be instituted as prescribed by the first paragraph of clause (a), Rule 27.

(b) If, however, there be no means for completing the arrangements for working by Pilotman in time to avoid detention to traffic, arrangements may be made for one or more trains to be worked through the Section, in one direction only, provided Pilot-working can be instituted from that end of the Section. If, however, a Pilotman is not available one or more trains may be despatched from, say—"A" to "B" by Proceed Order, and when the last train has arrived at "B," arrangements may then be made for Pilot-working to be instituted from "B" and a Proceed Order issued for a train to run from "B" to "A." A Proceed Order must not be issued unless absolutely necessary, nor until its use has been authorised by the District Control Officer, and then only in accordance with these instructions.

3. (a) When, in accordance with sub-clause (b), clause 2, it is required to despatch a train by Proceed Order, the Station-master at the Station from which such train is to be despatched must by means of that train institute the arrangements for working by Pilotman. The man appointed to act as Pilotman must, after completing such arrangements at his home Station, ride with the Driver, but the Driver must have possession of the Proceed Order, which must be handed to him by the Station-master, and no train must be allowed to enter the Section from the opposite end, until the arrival of the train with the Pilotman, when the arrangements for working by Pilotman must be completed; traffic will then be conducted as prescribed by Rule 27.

(b) If, however, another or other trains be required to follow in the same direction through the Section before the services of a Pilotman can be obtained, or before the Pilotman could complete Pilot-working arrangements, and return to his Home Station, such trains may be despatched by Proceed Order, but a separate Proceed Order must be authorised and issued for, and handed to the Driver of each such train. A Second Proceed Order must not be issued until the train, for which the previous Proceed Order was issued, has cleared the Section, and such Order has been collected and cancelled in accordance with clause 12 hereof; see also clause 10.

Whenever possible, a Proceed Order should only be authorised for a train or a series of trains to proceed in one direction through the Section. If, however, the services of a Pilotman cannot be obtained at "A," a train or series of trains may be despatched from "A" to "B" by Proceed Order, and on arrival of the last train at "B" arrangements may then be made for a Proceed Order to be issued for a train or series of trains to run from "B" to "A." Messages "A" and "B" referred to in clause 9 hereof must not, however, be sent to the District Control Officer for authority to issue the Proceed Order for the train, or series of trains, from "B" to "A" until the last train carrying the Proceed Order from "A" has arrived complete at "B," and such Proceed Order has been collected and cancelled in accordance with clause 12 hereof.

**Note.—It must be distinctly understood that Proceed Orders are only to be authorised to avoid delay to traffic, and the Pilot-**

## BLOCK WORKING INSTRUCTIONS.

**man must accompany the first train travelling on a Proceed Order that will permit of his completing the Pilot-working arrangements without causing delay to any train.**

(c) If it be necessary to suspend the Electric Train Tablet or Electric Train Staff Block System and issue a Proceed Order, the Station-masters must see that it is done strictly in accordance with these instructions; if, however, the Station-master be off duty, the employes in charge of the Signalling at the respective Staff Stations must act instead, provided they have been certified to as competent in the working of the Electric Train Tablet or Electric Train Staff Block System.

(d) On the departure of each train that travels with a Proceed Order, the Station-master must send a Telegraph (or Telephone) message to the Staff Station in advance, using the code word "Apix," and on the arrival of the train complete (within the meaning of Rule 12) at the Staff Station in advance, the Station-master there must send a Telegraph or Telephone message to the Staff Station in the rear, using the code word "Acre."

Code Word	Text of Message represented by Code.
"Apix"	. . . . train left here at* . . . . .
"Acre"	. . . . train has arrived complete*

*\*Here insert the words, accompanied or unaccompanied by Pilotman.*

**4.** Before applying for authority to issue a Proceed Order the Station-masters at each end of the Section must confer by Telephone, or where Telephone is not in operation, by Telegraph, and arrive at a complete understanding in respect of the circumstances that call for the use of a Proceed Order; every precaution necessary to insure safety must be adopted and full particulars must be exchanged between the Station-masters in order that definite information shall be furnished to the District Control Officer.

*These instructions do not permit of a Proceed Order being issued whilst there is a Staff for the Section in the Intermediate Electric Staff Instrument at any unattended Station, Siding, or Junction, nor do they permit of a Proceed Order being issued for any train to proceed to or from such unattended Station, Siding or Junction.*

*For working of unattended Stations, Sidings, or Junctions with Intermediate Electric Staff Instruments, see pages 649-655.*

**5. (a) Failure of Staff Instruments.**—If the Signaller be unable to withdraw a Staff from the Instrument, he must not assume that the Instrument is defected until careful tests have been conducted; the respective instruments at each end must be tested in the regular way, due care being taken to see that the instruments are properly manipulated and that all the conditions necessary to withdraw the Staff exist:—

(i) See that the Right-hand Indicator (see page 617) if provided on the Instrument is at the required position; if a Tablet



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Instrument, see that the last Tablet inserted has been turned home into the Instrument, and that the Cap is properly closed.

- (ii.) Where a Bank Engine Key is provided, see that the Key is in its normal position and turned in its lock.
- (iii.) Lightning Arresters.—See that no foreign substance is foul of the contacts of the Lightning Arrester; see pages 665-666.
- (iv.) If, when withdrawing or inserting a Staff, the drum of the Instrument does not revolve far enough to allow the locks to fall clear, the Bell Key may be prevented from working properly; this trouble may be overcome by lifting a Staff into the slot, and pressing it gently against the connections of the drum, as in the process of withdrawing the Staff.

(b) **If a Staff Can be Withdrawn at the Opposite End.**—If, for example, a Staff cannot be withdrawn when required at "A," but in the process of testing, one can be withdrawn in the regular way at "B," it may be assumed that no other Staff is out of the Instruments for that Section. In such case, however, the Staff withdrawn at "B" must be replaced in the Instrument in order that the Instrument at "A" may be again tested, and if, after further careful testing, a Staff cannot be withdrawn at "A," then the Signaller at "B" must again withdraw the Staff, and if circumstances permit the arrangements for working by Pilotman must be commenced from that end of the Section.

If, however, it be not possible to institute the arrangements for Pilot-working at "B" without incurring delay to a train at "A," arrangements may be made to institute Pilot-working at "A" and to work the train or trains from "A" to "B" by Proceed Orders as laid down in clause 3, in which case the Staff withdrawn at "B" must be secured under lock and key until the arrival of the train accompanied by the Pilotman from "A," or it is required for further testing, but after being released for testing purposes, it must be again secured under lock and key; the Staff Instruments must not, however, be tested or operated in any way after a Proceed Order has been issued until the train for which it has been issued has arrived.

(c) **When a Staff Cannot be Withdrawn at Either End.**—If, after careful testing, a Staff cannot be withdrawn from the respective Instruments at either end of the Section, a thorough understanding must be established in respect of the last train that passed through the Section and the distinguishing number of the Staff withdrawn for and delivered to the Driver of that train; if that particular Staff is located in either of the Instruments, it must next be ascertained by comparing the phase of the Instruments, whether another Staff was subsequently withdrawn for any purpose. If the instrument at each end of the Section shows the same phase (White or Red) it will be sufficient proof that all Staffs for the Section are in the Instruments, in which case the arrangements for working by Pilotman must be established in accordance with Rule 27.

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If, however, the last Staff withdrawn for the Section has been located in the Instrument, and the phase of the Instruments also indicate that all Staffs are in the respective instruments, and delay would be caused in complying with Rule 27, arrangements may be made for one or more trains to be despatched, by Proceed Order in accordance with clause 3 hereof.

**6. Broken or Damaged Staff or Bank Engine Key or Bank Engine Key Lost.**—When, from any cause, a Staff is broken or so damaged that it cannot be dealt with as laid down in clause (e), Rule 36, the arrangements prescribed by clause (c) of that Rule (36) must be carried out; if, however, two or more trains are required to follow in succession through the Section and there is not sufficient time to establish the arrangements for Pilot-working without incurring delay to traffic, arrangements may be made for the trains to be worked through the Section by Proceed Order in accordance with clause 3 hereof.

- (i.) If the broken or damaged Staff be at the Station from which the train (or trains) is to be despatched by Proceed Order, the man appointed as Pilotman must obtain the Staff and retain it until it is handed to the Fitter for testing purposes, see clause (j) of Rule 27; if, however, the broken or damaged Staff be at the opposite end of the Section, it must be secured under lock and key until the train accompanied by the Pilotman has arrived there and he has completed his arrangements for Pilot-working.
- (ii.) **Damaged Bank Engine Key.**—When from any cause a Bank Engine Key is damaged so that it will not operate the Electric Switch Lock and the Electrical Fitter is not available to cut out the Lock, Pilot-working must be established in accordance with Rule 27. If, however, the last Staff withdrawn for the Section has been located in the Instrument, and the phase of the Instruments also indicate that all Staffs are in the respective Instruments and delay to traffic would be caused in complying with Rule 27, arrangements may be made for one or more trains to be despatched by Proceed Order in accordance with clause 3 hereof. The Station-master in possession of the Bank Engine Key will be responsible for its being kept locked away in security until it is handed to the Fitter in the presence of the Pilotman for ordinary working to be resumed. See Rule 39.
- (iii.) The above course must also be adopted when a Bank Engine Key is lost and the Bank Engine Key Form is in possession of the Station-master.
- (iv.) If a Staff be out of the Instrument at the Station from which the train (or trains) is to be despatched by Proceed Order, as provided for in the two preceding clauses, the man appointed as Pilotman must obtain such Staff and retain it until it is required for ordinary working to be resumed; if,

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however, the Staff be at the opposite end of the Section, it must be secured under lock and key until the train accompanied by the Pilotman has arrived there and he has completed the arrangements for Pilot-working.

**7. Staff Lost.**—In the event of a Staff being lost, Pilot-working must be established in accordance with Rule 27, and if the Staff be afterwards found it must be handed to the Pilotman and retained by him until Pilot-working has been cancelled.

If, however, there be not sufficient time to establish the arrangements for Pilot-working without incurring delay to traffic and the Station-masters concerned have definitely decided that the train for which the Staff was withdrawn is clear of the Section, and the Train Register Books disclose that no other Staff has been withdrawn, arrangements may be made for one or more trains to be worked through on Proceed Order in accordance with clause 3 hereof.

**8. Staff Overcarried.**—In the event of the Staff for the Section being overcarried, and there is no means for returning the Staff to its Home Station or for establishing the arrangements for Pilot-working without incurring delay to traffic, arrangements may be made for one or more trains to be worked through the Section (subject to the conditions laid down in clause 3 hereof) by Proceed Order.

- (i.) Before making application for authority for the issue of a Proceed Order, the Station-masters concerned must first have a definite understanding that the Staff has been overcarried, and that the train for which it was withdrawn is clear of the section.
- (ii.) When a Staff is overcarried, it must be returned in accordance with Rule 1 as soon as practicable, to its nearest home Station, and if Pilot-working has been established, the Station-master receiving the returned Staff must secure it under lock and key until it is handed to the Pilotman.

**9.** When the Station-masters at both ends of the Staff Section have mutually agreed that the use of a Proceed Order is necessary to avoid delay to traffic, and they are assured that the testing operations and the directions prescribed in these instructions have been carried out and complied with, and that the Staff Section is not obstructed by any vehicle or train, the Station-masters at the respective Staff Stations must apply to the District Train Control Officer, to suspend the Electric Train Tablet or Electric Train Staff Block System (see Forms of Messages "A" and "B" hereunder) and to authorise the despatch of the specified train (or trains) by Proceed Order. On receipt of these messages, the Control Officer shall, if he consider it expedient, suspend the Electric Train Tablet or Electric Train Staff Block System (see Form of Message "C") and authorise the despatch of the specified train (or trains) by Proceed Order, in accordance with clause 3 hereof.

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(Form of message "A" referred to in clause 9.)

.....19..

From Station-master.....

To.....

Owing to\* ..... Pilot-working must be instituted.

No.† ..... train is‡ ..... my Station, Pilot-working as prescribed in Rule 27, cannot be established without delay to traffic. Please suspend the Electric Train Staff or Electric Train Tablet Block System, and authorise the despatch of No.....(specify the train or trains) from this Station to.....Station by Proceed Order.

(Here insert the particulars required by the official to whom this message is addressed, examples:—

(i.) In the case of a Failure of Instruments—State whether a Staff it out of the Instrument, and if so, at which Station, its distinguishing number, and whether it is secured under lock and key as required.

(ii.) If, after thoroughly testing, a Staff cannot be withdrawn at either end, state so, and specify the Phase Colour of the Staff Instrument at your Station.

(iii.) Where a Bank Engine Key is provided for the Section, the Station-master at the Station where the key is kept must state whether it is secured under lock and key as required; if the Bank Engine Key be lost he must state whether the Bank Engine has returned, and the Bank Engine Key Form is in his possession.

(iv.) In the case of a broken or damaged Staff.—The Station-master in possession of the Staff must state briefly how and where the damage occurred, and whether it is in possession of the Pilot-man, or secured under lock and key as required.

(v.) In the case of a Staff being overcarried or lost.—Specify its distinguishing number, the train for which it was withdrawn, and the time such train cleared the Section.

\*Here, according to the circumstances, insert (a) Failure of Electric Staff (or Tablet) Instruments for the Section.....and.....  
 or (b) Staff No..... for the Section.....and.....  
 .....being broken (or damaged); or (c) the Bank Engine Key for the Section.....and..... being lost (or damaged);  
 or (d) Staff No..... for the Section.....and.....  
 .....being overcarried or lost.

†Insert number of train.

‡Insert the word "Approaching" or "At" as the case may be.

Signature.....

Time.....

**BLOCK WORKING INSTRUCTIONS.**

*(Form of message "B" referred to in clause 9.)*

.....19..

*From Station-master.....*

*To.....*

Owing to\* ..... Pilot-working must be instituted.

Pilot-working, as prescribed by Rule 27, cannot be established without delay to traffic. Please suspend the Electric Train Staff or Electric Train Tablet Block System, and authorise the despatch of No.....*(specify the train or trains)* from ..... Station to this Station by Proceed Order.

*(Here insert the particulars required by the official to whom this message is addressed, examples:—*

*(i.) In the case of a Failure of Instruments—State whether a Staff is out of the Instruments, and if so, at which Station, its distinguishing number, and whether it is secured under lock and key as required.*

*(ii.) If, after thoroughly testing, a Staff cannot be withdrawn at either end, state so, and specify the Phase Colour of the Staff Instrument at your Station.*

*(iii.) Where a Bank Engine Key is provided for the Section, the Station-master at the Station where the key is kept must state whether it is secured under lock and key as required; if the Bank Engine Key be lost he must state whether the Bank Engine has returned, and the Bank Engine Key Form is in his possession.*

*(iv.) In the case of a broken or damaged Staff.—The Station-master in possession of the Staff must state briefly how and where the damage occurred, and whether it is in possession of the Pilot-man, or secured under lock and key as required.*

*(v.) In the case of a Staff being overcarried or lost.—Specify its distinguishing number, the train for which it was withdrawn, and the time such train cleared the Section.*

\*Here, according to the circumstances, insert (a) Failure of Electric Staff (or Tablet) Instruments for the Section.....and..... or (b) Staff No..... for the Section.....and.....being broken (or damaged); or (c) the Bank Engine Key for the Section.....and..... being lost (or damaged); or (d) Staff No..... for the Section.....and..... being overcarried or lost.

Signature.....

Time.....

**BLOCK WORKING INSTRUCTIONS.**

*(Form of message "C" referred to in Clause 9.)*

	.....19..
<i>From</i> .....	
<i>To Station-masters</i> .....	
I hereby suspend the Electric Train Tablet or Electric Train Staff Block System for the section between.....and .....Stations, and authorise.....Station to issue a Proceed Order for ..... ( <i>specify train or trains</i> ) to run from .....to.....	
Signature.....	
<i>Time</i> .....	

**10. (a) Proceed Order Issue Book.**—The Proceed Order Issue Book contains a number of Forms (see specimen Form "D" below), one of which must be correctly filled up in its numerical order by the Station-master at the Station to which the train is required to run, and when completed must be taken out of the book, and the whole of the printed and written matter telegraphed or telephoned to the Station from which the train requires to travel with a Proceed Order.

Form "D" must not be filled up until authority for the issue of the Proceed Order has been received; a separate Form must be filled up and issued for each train authorised to travel by Proceed Order.

## BLOCK WORKING INSTRUCTIONS.

(Form "D" referred to in sub-clause (a) of clause 10.)

To be printed on **White** paper.**VICTORIAN RAILWAYS.****Proceed Order No.**.....

.....19..

Issued at.....Station.

No. of Words..... Time.....

To Station-master.....

Owing to\*.....the Control Officer  
 .....(location)..... has suspended the  
 \*\*..... and authorised the  
 issue of this Proceed Order for No..... train to be  
 despatched from..... to this Station, for which  
 train the Line is clear from.....  
 to.....

The last††..... train that left here was No.  
 .....at..... with Staff No.†.....

.....Station-master.

.....Station.

‡ Time received.....

‡ Time sent.....

Signature of Operator.....

\*Here, according to the circumstances, insert (a) Failure of the Electric Staff (or Tablet) Instruments for the Section.....and.....; or (b) Staff No. .... for the Section.....and..... being broken (or damaged); or (c) the Bank Engine Key for the Section ..... and ..... being lost (or damaged); or (d) Staff No. .... for the Section ..... and ..... being overcarried or lost.

\*\*Here insert the words Electric Train Tablet or Electric Train Staff Block System, whichever System is in use.

††Here insert Up or Down, depending upon whether it is the Up or Down direction towards the Station receiving the Proceed Order.

‡Here state whether a Staff is out of the Instrument at your end, and if so, whether it has been locked away; if a Staff cannot be withdrawn, state so, and specify the Phase Colour of Instrument; if a Bank Engine Key, at your end, state whether it is locked away; if a Bank Engine Key is lost, state whether Bank Engine has returned, and whether you are in possession of Bank Engine Key Form.

‡This part to be filled in by the Operator.





## BLOCK WORKING INSTRUCTIONS.

(b) When a train is to travel on a Proceed Order, the Signalman or person in charge must verbally inform the Guard of the circumstances, and before leaving the Guard must ascertain whether the Pilotman is accompanying his train.

(c) When any train is assisted by a second engine in front, the Proceed Order must be shown to, and endorsed by, the Driver of the rear engine, and delivered to, and carried by, the Driver of the leading engine; if an engine is to assist in the rear it must accompany the train throughout the Staff Section, and in such a case the Proceed Order will be endorsed by the Driver of the leading engine, and carried by the Driver of the engine assisting in rear.

**12.** Upon the arrival of the train at the Staff Station in advance, the Proceed Order must be collected from the Driver, and the word **"Cancelled"** written in ink across it, with a remark as to the time the train arrived; the Form must be then signed and dated by the Station-master, and promptly forwarded to the Superintendent for the District, together with full particulars of the cause of its being issued.

**13.** (a) Proceed Orders sent by telephone must be dealt with in accordance with the special instructions for telephoning messages as laid down on pages 141-142.

The use of any Telegraph Code word or abbreviation in messages "A," "B," "C," "D," or "E," is strictly forbidden. These messages must be classed as "Urgent" (D.G.) Messages.

(b) When sending cancelled Proceed Orders to the Superintendent for the District, all messages in connection therewith must be attached, including those exchanged by the Station-masters before authority was obtained to issue a Proceed Order.

In the event of Station-masters applying for permission to issue a Proceed Order, and for any reason such permission is not given, all messages and reports in connection with the application, and the reason for the Proceed Order not being issued, must be similarly forwarded.

(c) Messages "A," "B," and "C," and all other messages in connection with the issue of Proceed Orders, with the "Cancelled" Proceed Orders, when received by the District Superintendent, must be promptly forwarded to the Superintendent of Goods Train Service, Room 75.

**14.** (a) **Train or portion of train left upon Single Line.**—When a train or portion of a train is left upon the Single Line from accident or inability of the engine to take the whole forward, the Driver must not, if he be in possession of a Proceed Order, return for it except by written instructions from the Guard, as prescribed in Regulation 243. In either case the Guard, after securing the rear portion, must protect his train in the rear, in accordance with Regulation 239; if the Pilotman be accompanying the train he must proceed with the Driver to the Station in advance, and, after completing the arrangements for working by Pilotman, return with the Driver for the rear portion of the train.

## BLOCK WORKING INSTRUCTIONS.

(b) As soon as the first portion of the train has drawn forward sufficiently far, either by day or night, two Detonators must be placed on the rails, 200 yards from the front vehicle, to notify the Driver when returning of the position of the remainder of his train left on the Running Line.

(c) After sunset, or in foggy weather, before the front portion is drawn forward, a Red Light must be placed on the front vehicle of the rear portion by the man who divides the train.

**15.** (a) When a train which carries a Proceed Order becomes disabled between two Staff Stations, and the Pilotman be not accompanying the train, the Driver must hand to his Fireman a written order, addressed to the Station-master at the nearest Station from which assistance can be obtained, stating the nature of the failure, the place where it has occurred, and authorising the Station-master to allow a Relief engine to proceed to remove the disabled train. The Station-master, on receiving the written order, must endorse it, arrange for the despatch of a Relief engine, and return the order to the Fireman, who must hand it to the Driver of the Relief engine, and accompany him to the place where he left the disabled train. The Driver of the Relief engine, after removing the disabled train to the end of the Section to which it was previously proceeding, must deliver up the written order to the Station-master, and the Driver of the disabled train must hand over the Proceed Order held by him. The Driver of the disabled engine must not remove his engine until the Relief engine arrives.

(b) The Fireman when proceeding to the nearest Station for assistance must place Detonators on the Line, as directed in Regulation 239, and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to an engine not attached to a train, the Fireman, when proceeding for relief, must place detonators on the Line, as per Regulation 239, for the protection of the disabled engine, and the Driver, after securing his engine, must similarly protect in the opposite direction, and then return to his engine.

(c) Should the train be accompanied by the Pilotman, he must make the best arrangements for procuring assistance without delay.

**16.** (a) Should an accident occur of such a nature as to block the Line, and the traffic is likely to be stopped for a considerable time, special arrangements must be made for working the trains to and from the Staff Station on each side of the obstruction. If the Pilotman be not accompanying the train, the Guard must put the Driver in charge of the point of obstruction, and the Driver must give the Guard a written order addressed to the Station-master at the Staff Station in the rear, stating the point of obstruction, and intimating that he will not allow the disabled engine or train to be moved until the Relief engine or train arrives. The Guard must then proceed to the Staff Station in the rear and hand the order to the Station-master, advising him fully of what has occurred. The Station-master will then withdraw and cancel the arrangements for working (through the Section) by Pilotman, and arrange to establish Pilot-working, in accordance with Rule 16a (but between the point of obstruction and the Staff Station in the

**BLOCK WORKING INSTRUCTIONS.**

rear). The Driver of the disabled train must hand the Proceed Order to the Fireman, and instruct him to take it to the Staff Station in advance. On arrival there the Fireman must hand the Proceed Order to the Station-master, advising him fully of what has occurred; the Station-master must then cancel the Proceed Order, and if a Staff had been removed from the instrument and locked away, release such Staff for the purpose of working trains between his Station and the point of obstruction; if a Staff is not out of the instrument the Station-master must, if necessary, arrange to establish Pilot-working in accordance with Rule 16a, but between the obstruction and the Staff Station in advance.

(b) The Guard and Fireman of the disabled train when proceeding to the rear and advance Stations respectively must place Detonators on the rail, in accordance with Regulation 239. On their return they will be held responsible for the protection of the obstruction until relieved.

(c) If the Pilotman be accompanying the train travelling on Proceed Order, he must carry out the duties specified in clause (a) for the Guard; in any case, however, the Guard must protect his train.

**17.** (a) Should any circumstance occur to prevent the use of the Proceed Order, it must be sent under cover by the most expeditious means (but a train or engine must not be used for the purpose unless working by Pilotman has been established or the Driver is in possession of the Staff for the Section) to the Station-master who issued it. When a Proceed Order has to be returned to the Issuing Station for cancellation, the Station-masters at both the Receiving and Issuing Stations must write the word "Cancelled," and the time, date, and his signature across the face of the Yellow Form "E," and each Station-master must promptly report the circumstances to the Superintendent for the District.

(b) In order to avoid the inconvenience involved in returning a Cancelled Proceed Order by messenger to the Station-master who issued it, as is required by clause (a) hereof, the Proceed Order (Form "D," see clause 10) should not be transmitted until the train at the other end of the Section is almost ready to leave. The Station-masters at both ends of the Section must keep in close touch with each other, so that no undue delay to the train will occur.

**18.** (a) Should a Proceed Order be lost, the Station-masters at both ends of the Section must communicate with each other by Telephone, or, where Telephone is not in operation, by Telegraph, and no train must be allowed to enter the Section to which the Proceed Order applies, until the Station-master has satisfied himself that the train for which the Proceed Order was issued has arrived complete.

(b) If the Proceed Order be found, it must be handed to the Station-master at either end of the Section to which it applies, who must, immediately on receipt, cancel it, and promptly forward it to the Superintendent for the District with a report of the circumstances.

**19.** The number of each Proceed Order must be recorded in the Train Register Book at the Station at each end of the Section, opposite the entry for the train for which it was issued.

## BLOCK WORKING INSTRUCTIONS.

20. The Proceed Order Issue and Received Books, when not in use, must be kept secured under lock and key.

21. The Control Officer responsible for authorising the issue of a Proceed Order must satisfy himself that every precaution necessary for safety has been adopted before giving authority for it to be issued.

22. (a) When, from any cause, permission to issue a Proceed Order cannot be obtained, Pilot-working shall only be established in strict accordance with Rule 27.

(b) Provided the Signalmen at both ends of the Section where the failure has occurred have ascertained that the Line is not obstructed by a train, the Pilotman, when proceeding to the other end of the Section to complete arrangements for Pilotman-working may proceed by public road, if time can be saved thereby, using any available conveyance for this purpose.

### BALANCING TABLETS OR STAFFS.—Rule 37, Appendix VII.

1. When the Tablets or Staffs in the instrument at one end of a Section have been reduced to six in number, the Signaller must, unless he is aware that they will be balanced by return traffic, communicate with the Electrical Fitter, so that arrangements may be made for as many Tablets or Staffs as may be necessary, to be transferred from the Tablet or Staff Instrument in which they have accumulated, to the Instrument at the other end of the Section. If, however, there be more than six Tablets or Staffs in the Instrument, and the Signaller become aware that this number will not be sufficient for the proper working of the traffic, he must take action to have the Tablets or Staffs transferred. When advising the Fitter that the Tablets or Staffs require balancing between .. and ..—must be used; this message must be sent from the Station or Signal-box at which the supply of Tablets or Staffs is low.

2. (a) Tablets or Staffs for balancing purposes must not be removed from, or deposited in, an Instrument whilst a Tablet or Staff is out at either end; and in order to make sure that all working Tablets or Staffs are in the Instruments, the Signaller must, before transferred Tablets and Staffs are removed from or deposited in the Instruments, send the **Testing** signal (see Rule 29), and the Tablet or Staff must be withdrawn by the Signaller and restored to the Instrument in the presence of the Fitter.

The same course must be followed at each Station after the Tablets or Staffs have been removed from or deposited in the Instrument, in order to ensure that the Instruments are in phase.

(b) The distinguishing numbers of the Tablets or Staffs must be entered in the Train Register Book at each end of the Section.

(c) The **Testing** signal need not be sent after the withdrawal of the Tablets or Staffs from the Instrument at which they have accumulated, nor after they have been deposited in the Instrument at the other end of the Section, if it be necessary to withdraw a Tablet or

## BLOCK WORKING INSTRUCTIONS.

Staff for traffic requirements and one is obtained; the Fitter should advise the Signalman concerned of his movements with this object in view.

(d) When balancing Staffs the Fitter should remove them from the outwards column of the Instrument in which they have accumulated, and place them in the inwards column at the other end of the Section.

(e) When transferring Tablets or Staffs the Fitter will be responsible for the custody of all Tablets or Staffs withdrawn from the Instrument, and he must not on any account allow them to pass out of his possession.

**3. Staff Magazines.**—(a) On some Sections (specified below) a portable apparatus (Staff-magazine) is provided, by means of which the Signalman may carry out the balancing and transferring of the Electric Train Staffs as laid down hereunder, without the co-operation of the Electrical Fitter.

(b) The portable Staff-magazine consists of an apparatus which, by a special arrangement of locks, may be so interlocked to the Staff Instrument that Train Staffs may be passed from the lower end of the Instrument into the Staff-magazine; the Magazine cannot be detached from the Staff Instrument until the Train Staffs removed from the Instrument have been locked in the Staff-magazine, and the remainder of the Train Staffs then become locked in the Staff Instrument, and can only be withdrawn as laid down in Rule 3, Appendix VII.

(c) When the required number of Train Staffs has been passed from the Instrument to the Staff-magazine, the Staff-magazine must be detached from the Instrument by the Signalman and transferred as soon as practicable to the Signalman at the other end of the Staff Section to which the Train Staffs apply, and the Signalman there, on receipt of the Magazine containing the Train Staffs, must attach and interlock it to the Staff Instrument, and the Train Staffs may then be passed from the Magazine to the Staff Instrument; the empty Staff-magazine must then be detached from the Instrument, and dealt with according to requirements. The Signalman will be responsible for the Staff-magazine being at the proper end of the Section when required.

(d) The Staff-magazine (empty or loaded) must be waybilled as "Important," and in each case the Signalman at the sending Station must notify the Signalman that is to receive it, and specify the train by which it will be forwarded.

A Staff-magazine must not be taken beyond the Section for which it is provided; the name of the Section is shown on the Apparatus.

(e) The distinguishing numbers of the Train Staffs being transferred under these instructions, and the time and text of the messages sent and received in connection therewith, must be entered in the Train Register Book at each end of the Section.

(f) When the Staffs in the Instrument at one end of a Section have been reduced to six in number, the Signalman must, unless he is aware that they will be balanced by return traffic, communicate with the Signalman at the other end of the Section, so that arrangements may be made for as many Staffs as may be necessary to be transferred to the Instrument at the other end of the Section. If, however, there be more than

## BLOCK WORKING INSTRUCTIONS.

six Staffs in the Instrument, and the Signaller be aware that this number will not be sufficient for the proper working of the traffic, he must take action to have the Staffs transferred.

In the event of failure of the mechanism of the Staff-magazine, owing to which it cannot be used, the Staffs must be transferred in accordance with Rule 37, Appendix VII. The Signaller must notify the Electrical Fitter, as laid down in clause 1 of these Instructions; the message to the Fitter must specify that the Staff-magazine is defective.

(g) The use of a Staff-magazine for the purpose of these Instructions is authorised on the following Sections:—Bacchus Marsh-Ingliston; Bungaree-Warrenheip, and all Sections between Anderson and State Mine Stations.

**4. Conveyance of Tablets or Staffs.**—When Tablets or Staffs are sent to or from the Workshops, or a Tablet or Staff Station, they must be securely packed, so as to be completely covered, and the package containing them must be plainly addressed and waybilled as "Value."

### TRAIN REGISTER BOOKS.

**1.** In addition to forwarding his report respecting any failure or irregularity, the Signaller must make use of the Train Register Book as the medium for recording all matters relating to the working of the traffic and the Signals, and in this connection the Book should contain a record of all that takes place in the Section.

Particulars of messages received respecting late running, or alterations, etc., in the running of trains, and of Train Signals denoting the running of Special trains, should also be entered in the Train Register Book.

Where Recorders are employed, the Signaller must see that the particulars are correctly registered.

**2.** The actual time occupied by trains at Stations must be accounted for in the "Remarks" column; e.g., "15 mins. shunting, 10 mins. engine requirements, 5 mins. van goods, 5 mins. testing brakes, 4 mins. crossing No. 1 Down, 3 mins. changing crews, 3 mins. waiting "Line Clear," etc.; and at Suburban Stations the time occupied at the platform in excess of 1 minute must also be accounted for, and the reason accurately stated.

The following abbreviations may be used in recording these particulars:—

"S," shunting	"Cross," crossing trains
"V G," van goods	"C C," changing crews
"E R," engine requirements	"W L C," waiting "Line Clear"
"T B," testing brakes	"Ex," excess time at platform.

**3.** When the Distant Signal has not been lowered for a train, or a train has been checked at a Home Signal where a Distant Signal is not provided, the fact must be noted in the "Remarks" column, thus—"Checked." A train must be considered to have arrived when it stops

## BLOCK WORKING INSTRUCTIONS.

at the platform, and to have departed when it again starts, any delay which may occur after the train departs from the platform until the **Train Departure** signal is sent must be properly accounted for.

Where Lock and Block or ordinary Block Instruments are not provided, or when such Instruments are provided, and have failed, the time at which the descriptive Electric Bell signal is received must be entered in the "Train Departure Received" signal column.

Should any delay occur between the actual departure of the train and the sending of the **Train Departure** signal, it must be accounted for in the Train Register Book.

**4.** Any train not booked to call must be considered to have arrived when it has reached the Home Signal. Whenever a train is detained at a Signal, a note must be made showing the actual time and the cause.

**5.** (a) When the undermentioned Code signals are exchanged, the record must be made across the figure columns on the line immediately following the last entry made, and not in the "Remarks" column.

- (i.) Blocking Back outside Home Signal (both 2-4 and 3 Signals).
- (ii.) Release Tablet or Staff for Shunting.
- (iii.) Shunting completed—Tablet or Staff replaced.
- (iv.) Vehicles running away. (See Rule 24, Appendices VI. and VII.)
- (v.) Vehicles running away on Right Line.
- (vi.) Vehicles running away on Wrong Line.
- (vii.) Engine of last train disabled in Section.
- (viii.) Relief Engine to remove Break-down.
- (ix.) Opening of Signal-box.
- (x.) Closing of Signal-box.
- (xi.) Obstruction, Danger. (The reason for sending this signal to be written in full.)

(b) In addition to the above quoted Code signals, the following particulars must also be recorded across the figure column:—

- (i.) The time when a fog arises (vide Regulation 100), and the time at which the fog clears, e.g., "Fog on at . . . time; Fog cleared at . . . time."
- (ii.) The time each Semaphore Telephone is tested, vide clause 2 (c) of Special Instructions, page 168, and if Telephone be defective, the time and to whom the defect is reported.
- (iii.) The time when an Engine Traverser is found to be out of order, and the time at which the Traverser is again brought into use.

**6.** When the traffic of a Double Line is being worked over a Single Line during repairs or obstruction, a line must be ruled in the Train Register book so as to separate the systems of working, a head line such as "Single Line Working Instituted" or "Double Line Working Restored" must be inserted across the figure line in each case; the same course must be followed when working the traffic of a Single Line by Pilotman. The Books must also show whether the Pilotman accom-

## BLOCK WORKING INSTRUCTIONS.

panied the train or whether he despatched it by a verbal order, the abbreviations "P.A." being used for the former, and "P.D." for the latter.

Whenever there is any failure of the Instruments or Bells the same course must be followed as regards a line being ruled and a heading shown, as laid down above; this is necessary so that the entries made under the Time Interval system shall be kept separate.

7. If a train be detained at a Home, Starting, or Advanced Starting Signal, an entry must be made in the "Remarks" column as to what action was taken by the employe concerned to comply with Regulation 75 and the Supplementary Instructions thereto contained in this Book. (See pages 164-168).

The following are examples of the several abbreviations that may be used:—

Conditions.	Abbreviations which may be used in Making Entry.
Driver sounded whistle; Red Hand Signal exhibited .. ..	"Red" at.....(time)
Special Telephone (where provided) used .. .. . . .	"Tel" at.....(time)
Fireman arrived at Box .. .. .	"F A B" at.....(time)
Guard Arrived at Box .. .. .	"G A B" at.....(time)
Shunter arrived at Box .. .. .	"S A B" at.....(time)

Note.—Any disregard of the provisions of Regulation 75 or of the instructions supplementary thereto must be promptly reported, and a note to that effect made in the Train Register Book.

8. (a) Except where special instructions to the contrary are issued, the time, when each signal is forwarded and received must be legibly recorded with a pen in the Train Register Book (**Telephone signal and Call Attention signal** excepted). If an incorrect or illegible entry be made, a line must be drawn lightly through it, and the correction be made above or below it, so that the original entry may be clearly seen. Every care must be taken to see that the entries are legibly made in the first place, and that the pages of the Train Register Book are kept clean.

(b) After having given permission for a train to approach, the Signalman must be on the alert to receive and acknowledge the **Train Departure** signal and to promptly exhibit the Signals for the train when the Line is clear in accordance with the Rules; the same attention must be exercised in connection with the sending and acknowledgment of the **Train Arrival** signal. If, after accepting or despatching a train, the Signalman should have occasion to leave the vicinity of the Instruments he must, immediately on his return, ascertain by Telephone whether the train has left the Station in the rear, or, in the case of a train having gone forward, whether it has arrived at the Station in advance, and whether the **Train Departure** signal or **Train Arrival** signal has been



## BLOCK WORKING INSTRUCTIONS.

sent during his absence, and if so the signal must then be repeated and acknowledged. A note to the effect that the signal was repeated and the reason must be made in both Train Register Books.

(c) When for the purpose of obtaining a meal interval it is necessary for an employe engaged in signalling duties to leave his Signal Box or Signalling instruments, he must, before proceeding to do so, comply with the instructions contained in sub-clause "b" hereof, and sub-clauses 1 to 7 of clause 4, page 647-648; he must also inform the Signalman on each side of him of his intention and the duration of his absence, and must also make full enquiries as to the running of trains, so as to avoid detentions which otherwise might arise owing to his absence.

9. (a) Each Station or Signal-box is supplied with two Train Register Books to be used alternately each week. Except otherwise ordered, the entries in the Train Register Book for each week must be commenced with the first train after 9 a.m. on Sundays, and, except as shown in sub-clause (c), clause 2, page 115, the books containing the previous week's entries are to be forwarded to the Block and Signal Inspector as shown hereunder:—

No. 1 District.—By Sunday trains to arrive at Flinders-street by 3 p.m.

Country Districts.—By first Up train on Monday, or, if no train on Monday, then by the first available train.

(b) Signalmen must not hand the Train Register Books to Guards, Shunters, or other disinterested employes; but unless instructions are issued to the contrary by the District Superintendent, the Signalman must personally deliver it to the Station-master or other person in charge of the Station, in ample time to be forwarded as above. The Signalman must also call at the Station-master's Office to obtain the duplicate book each week. Officers in charge must see that the book is properly addressed and duly sent forward, and Guards or others handling the books en route must see that they are not delayed on Up or Down journey, or interfered with by any unauthorised person.

(c) At the Stations shown hereunder it will not be necessary to forward the Train Register Books to the Block and Signal Inspector except specially authorised or as provided in clause 2, page 115.

Moonee Ponds  
Prahran  
Ripponlea

North Brighton  
Middle Brighton  
Dendy Street

Hampton.

### FAILURE OF ENGINE.

1. When a train is assisted by an engine in the front, and one of the engines becomes disabled, the disabled engine may be safely secured in an intermediate Siding in the Section, if a suitable one exist. The Driver of the disabled engine must give the Driver of the other engine a written order for a Relief Engine stating that he will not allow his engine to be moved out of the Siding nor to foul the Running Line until a Relief Engine arrives.

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**2.** If the failure should occur on a Single Line, and it is the second engine that is disabled, the Driver of the leading engine must have possession of the Tablet or Staff, which he must retain until the whole of the train has been removed from the Section.

**3.** If there be only one engine with a train, and it becomes disabled in a Siding, a Relief Engine must be obtained as prescribed in the Rules, Regulations, or other Instructions, and if, when the Relief Engine arrives, it be found that the disabled engine must be left in an intermediate Siding, the Driver of the disabled engine must give the Driver of the Relief Engine a written order stating he will not allow his engine to be removed from the Siding nor foul of a Running Line until the Relief Engine returns.

**4.** When the train or Relief Engine arrives at the Signal-box in advance, the Driver must report the circumstances, and hand the order to the Signalman.

**5.** Every Wrong Line and Emergency Relief Order which is issued by a Driver, Guard, or Signalman, in accordance with the Rules, Regulations or other instructions, must be collected by the Signalman after use, and cancelled, and forwarded without delay to the Block and Signal Inspector, together with a report of the circumstances under which it was used.

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### DETACHING VEHICLES AT STATIONS ON DOUBLE LINES.

On a Double Line, when a train has trucks to detach at a Station where it will be necessary to cross or foul the opposite Line to reach the Siding, the Guard must inform the Signalman at the previous stopping place, and he must promptly advise the Station where the trucks require to be detached, so that the Signalman there may, if necessary—and its use is authorised—accept a train in the opposite direction under the **Section Clear but Station or Junction Blocked** signal.

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### TROLLIES GOING INTO OR THROUGH TUNNELS.— (Regulation 270.)

Clause (b) of Regulation 270 must be observed when it is necessary for any Trolley or other machines to go through the Tunnel between Geelong and South Geelong. Machines passing through all other Tunnels must be protected solely by the employe's own Signals. (See special Instructions re Working of Trolleys and other machines, pages 493-498.)

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### SPECIAL INSTRUCTIONS IN FORCE AT CERTAIN PLACES.

*Special instructions for the direction of employes concerned in Fog-signalling, including Groundmen, are issued in pamphlet form in the month of January in each year, and the current pamphlet is to be read in conjunction with any references to Groundmen that appear in the following instructions, pages 686-708.*

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### FOOTSCRAY JUNCTION.

**1. Working Down Northern Line Trains Through the Junction.**—At Footscray Junction the Signalman must not allow a Down Northern Line train through the Junction while an Up train is standing at No. 2

## BLOCK WORKING INSTRUCTIONS.

(Williamstown Line) Platform unless the Up train is delayed through accident, failure or from some other cause, in which case the Station-master may, after he has informed the Driver of the Up train of the action he proposes to take, instruct the Signaller to allow the Down Northern Line train to proceed.

**2.** (a) When a Down Northern or North-Western Line steam train has stopped at No. 3 platform at Footscray Station and the Driver finds when attempting to start the train that the engine has "centred," he must not set back until he has received a signal to do so from the Guard of his train, and after receiving such signal he must set back only as far as is necessary to get engine off centre.

(b) The Guard of the train must not give the Driver a signal to set back until he has obtained the permission of the Officer-in-Charge at Footscray, and the latter, before giving such permission, must communicate with the Signaller and obtain his assurance that the intended movement is safeguarded.

(i.) In every such case, the Signaller must keep at the Stop position the Up Home Signal on Post No. 7 until the train at No. 3 Platform has started ahead and is proceeding on its journey.

(ii.) In the event of the Signal on Post No. 7 having been placed at "Proceed" for an Up Williamstown Line train which is at, or closely approaching, the platform, the set back movement on No. 3 Road must not be permitted until the Williamstown Line train has cleared the Junction, and the Signal has again been placed to Stop.

If, from any cause, the Up train be delayed, the Officer-in-Charge must arrange for the Signal on Post No. 7 to be placed at "Stop," and the Driver or Motorman advised of the fact, and that the train at No. 3 Platform is about to set back, before giving permission to the Guard for the set back movement on No. 3 Road.

(c) All concerned must be on the alert to prevent the train at No. 3 Platform from setting back foul of the junction.

(d) The Driver of a train requiring to set back under these instructions must give three distinct whistles.

**3. Down Starting Signals.**—The Down Starting Signals on Posts Nos. 9 and 17 are also the Down Home Signals for "C" and "D" Boxes on the Bendigo Line, and "B" Box on the Williamstown Line. When a detention occurs at either Signal, such detention must, for the purposes of Regulation 75, be considered as being at a Home Signal, and when, in accordance with Regulation 75, it is the Fireman's duty to go to the Box, he may in all cases go to the Box in advance ("D" or "B," as the case may be), and the Signaller at the Box to which the Fireman goes must immediately remind the Signaller at "A" Box of the detention, and continue to remind him from time to time in all cases of excessive detention.

**4. Two Up Trains Not to be Allowed to Approach at the Same Time.**—(a) Except in case of emergency, two Up trains must not be permitted to be at No. 7 Bracket Post, Up Home Signals, at the

## BLOCK WORKING INSTRUCTIONS.

same time, and when a train is to receive precedence, in accordance with Block Rule 4, the Home Signal at which the other train is to be held back must be Post No. 8 for the Bendigo Line, and Post No. 16 for the Williamstown Line.

(b) Care must be taken to prevent long Goods trains from blocking the Level Crossings in the vicinity of these Boxes, and in such case trains should be kept back at Box "D" or Box "B," as may be required.

### WILLIAMSTOWN BEACH—NORTH WILLIAMSTOWN.

#### Rule 26. Appendix IV.

When the time has arrived for Williamstown Beach to be "Switched Out" for the day as a Block Post, and it becomes necessary to put the Up Goods train for which the "Is Line Clear?" signal was last acknowledged, into the Up Loop Siding, the Signaller may, providing the **Train Arrival** signal has been sent to Williamstown and the train has been placed clear of the Running Line into the Loop Siding, and each of the Block Sections is clear, send the Closing of Signal-box signal and "Switch Out" in accordance with Block Rule 26.

### WILLIAMSTOWN LINE.

#### Goods Trains.

1. Up Goods trains for Melbourne must not be allowed to leave Williamstown or Newport, within 10 minutes of a Passenger train being due to depart.

2. To avoid stopping any such train at the Starting Signal on the incline at Yarraville "B" Box, the Signaller there must not accept the train from Spotswood until it has been accepted by the Signaller, Yarraville "A" Box.

3. The Signaller at Newport must, when necessary, keep the Signaller at Spotswood and Yarraville "B" Box informed of the train movements.

4. Should an Up Goods train come to a stand on the Yarraville Bank and be unable to proceed, and assistance be obtained from the rear, the assisting engine may push the Goods train as far as Yarraville "A" Box without coupling on.

This clause does not authorise any avoidable running on the wrong Line, and, in the event of an engine having been obtained from Spotswood, it must return from Yarraville "A" Box to that Station on the proper Line.

### WILLIAMSTOWN (ANN-STREET).

The Signaller must not permit shunting operations to be carried on in No. 2 Road after the **Is Line Clear?** signal has been accepted for a Down train, nor when an Up Passenger train is passing through the Crossover to the Up Line.

**BLOCK WORKING INSTRUCTIONS.**

**COBURG LINE.**

**Down Goods Train on Royal Park Bank.**

In the event of a Down Goods train being brought to a stand on the incline between Macaulay and Royal Park, from inability of the engine to take the whole forward, the train must not be divided on the Bank, but the Guard must return to Macaulay and obtain permission in writing from the Signalman there for the train to return on the wrong Line to Arden-street Siding. (See Regulation 244.)

**ESSENDON.**

**Use of Starting Signal in Foggy Weather.—(Regulation 67, clause (d).)**

In foggy weather the Signalman may, if the Fog-signalman be at his Post, permit a Down train to go forward to the Down Starting Signal, provided he has been advised by the Fog-signalman that the previous train has passed the Starting Signal, and that such Signal is at Stop.

**NORTH FITZROY, CLIFTON HILL "A" BOX, AND VICTORIA PARK.**

**Working of Goods Trains.**

1. There is not sufficient Siding accommodation at Victoria Park or North Fitzroy to enable two Goods trains to be dealt with at either place at the same time, and the following mode of working must therefore be observed:—

2. **North Fitzroy to Victoria Park.**—The Signalman at North Fitzroy must, before allowing a Goods train to depart, first obtain permission by telephone from the Signalman at "B" Box, Clifton Hill. The Signalman there to consult with the Signalman at Clifton Hill "A" Box, if necessary; the running of the Heidelberg Goods train to be taken into consideration.

3. **Victoria Park Sidings to Clifton Hill.**—(a) The Signalman at Victoria Park must, before allowing a Goods train to depart, first obtain permission by telephone from the Signalman at "A" Box, Clifton Hill; and the latter must consult with the Signalman at Clifton Hill "B" Box.

(b) The Signalman at Clifton Hill "A" or "B" must not accept a Goods train from Victoria Park unless he can arrange for such train to proceed without being brought to a stand at the Home Signal, at Box "A."

(c) In each case, if permission cannot at once be given for the Goods train to depart, the time when a second application should be made must be stated.

**Signal Codes for Electric Bells:—**

	Long	Short	Long
Victoria Park Goods . . . . .	..	1	.. 5
Reservoir line or Whittlesea Goods trains ..	4	.. 2	..
Goods train or engine to shunt at North Fitzroy ("A," "B," and Loop Junction only) ..	1	.. 5	..

The Signalman at "A" and "B" Boxes, Clifton Hill, to ring the No. of the Road that the train will run through, after the Code ring has been acknowledged.

## BLOCK WORKING INSTRUCTIONS.

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### CLIFTON HILL "B" BOX AND WESTGARTH.

See Special Instructions, pages 852-854, and "Rules for the Automatic and Track Control System of Signalling on Single Lines of Railway," pages 580-600.

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### WESTGARTH AND ALPHINGTON.

When trains which have to cross each other are approaching at the same time, precedence should be given to the train approaching on the Single Line.

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### CLIFTON HILL "B" BOX AND NORTHCOTE LOOP JUNCTION.

1. The Track Block System of Signalling is in force on the Up and Down Lines between the above-named Signal-boxes. For instructions respecting the Track Block System, see pages 105-107.

2. **Use of Down Starting Signals in Foggy Weather, Regulation 67, Clause (d).**— In foggy weather the Signalman at Northcote Loop Junction may permit a train (including Light Engine) awaiting "Line Clear" to go forward to the Down Starting Signal (Post 44) provided the Signalman has been informed by the Fogman that the preceding train has passed that Signal, and that such Signal is at the Stop position.

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### BURNLEY - DARLING LINE.

See Special Instructions, pages 865-868.

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### MONT ALBERT.

#### Trains Not Timed To Call.

When Mont Albert is open as a Block Post and the Section Mont Albert-Box Hill is occupied by a preceding train or "Line Clear" has been withheld, and a train hauled by Electric Motor Cars is approaching and such train is not timed to stop at Mont Albert, authority is hereby granted for the approaching train to be admitted to the platform (in accordance with clause (b), Regulation 61) to await "Line Clear."

Attention is directed to the second paragraph of the instructions under the heading "Passenger Trains not timed to call," on page 362, which must be strictly observed.

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**BOX HILL.****Working of Up Trains.**

1. (a) The Signalman must not accept the **Is Line Clear?** signal for an Up train if both Nos. 2 and 3 Roads be occupied, or will be required for occupation before the train for which the **Is Line Clear?** signal is sent will arrive, unless No. 4 be clear to Post 25 or No. 5 Road be clear to Post 26, and the Points are set for the Clear Line.

(b) After the "Line Clear" signal has been accepted for an Up train to approach, no obstruction of the Line for which the Signalman has set the Points must be allowed until the train has been brought to a stand at the Home Signal, or has arrived in the Station Yard or the **Cancelling** signal has been received from the Signal-box in the rear.

2. **Regulation 198.**—In order to facilitate the running of trains on the Box Hill Line, and obtain the maximum facilities of the terminal conditions at that Station, Guards of all Down trains terminating at Box Hill and Down through trains that will be detained longer than 20 seconds, must, immediately on arrival, communicate with the Signalman by means of the special telephone provided for the purpose of informing the Signalman that their trains are complete.

The official in charge of the respective platform must see that the above Instruction is strictly observed, and thus obviate delays to following trains.

Telephones have been provided at Nos. 1 and 2 Platforms as shown hereunder:—

No. 1 PLATFORM.—On the fence adjacent to the Light Goods Shed, situate at Up end.

No. 2 PLATFORM.—On the wall of the Lamp Room, situate at Up end.

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**GROYDON.****Line Clear for Down Trains.**

At Croydon, before the **Is Line Clear?** signal for a Down train is accepted there must be a Clear Line in No. 1 Road as far as Post No. 6 or No. 2 Road as far as Post No. 5, and the Points set for the Clear Road. After permission has been given for the train to approach, no obstruction of the Clear Line, for which the Signalman has set the Points, must be allowed until the train has been brought to a stand in the Station Yard, or at the Down Home Signal (Post No. 2), or the **Cancelling** signal has been received from the Station in the rear.

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**LILYDALE.****Line Clear for Up Warburton Line Trains.**

Before the **Is Line Clear?** signal is accepted for an Up train from the Warburton Line, there must be a Clear Line to the Back Platform Road up to Post No. 5, or to No. 1 Road up to Post No. 4, or to No. 2 Road up to Post No. 6, and the Points set for the Clear Line. After permission has been given for the train to approach, no obstruction of the

## BLOCK WORKING INSTRUCTIONS.

Line for which the Signalman has set the Points must be allowed until the train has been brought to a stand, either in the Station Yard, or at the Home Signal (Post No. 14), or the Cancelling signal has been received from the Station in the rear.

### GEMBROOK LINE.

**1. Equipment of Line.**—There are Home Signals at Upper Fern Tree Gully, Upwey, Belgrave, Emerald, Cockatoo and Gembrook.

Fixed Signals are not provided at Selby, Tecoma, Aura, Paradise, Nobelius's Siding or Wright.

There is a Crossing Loop at Upwey, Belgrave, Aura, Emerald, and Cockatoo.

NOBELIUS'S SIDING is situated on a heavy falling grade (1 in 40). See Special Instructions, page 875, re application of Hand Brakes on detached portion of a train working at this Siding.

**2. METHOD OF WORKING. —Upper Fern Tree Gully-Belgrave.** — (a) The Line from Upper Ferntree Gully to Belgrave is worked under the Automatic and Track Control System of Train Signalling on Single Lines of Railway; see pages 580-600 for Rules for this system of working. Upwey is ordinarily an Unattended Crossing Station. The Station-master, Upper Ferntree Gully, is responsible for the traffic arrangements of the Line from Upper Ferntree Gully to Belgrave.

(b) **Belgrave-Gembrook.**— The Line from Belgrave to Gembrook is ordinarily worked under the Rules and Instructions for Working Single Lines under the Train Staff and Ticket System; ordinarily the Staff Sections are Belgrave-Emerald and Emerald-Gembrook. When the use of a Staff Ticket is necessary for working the traffic, the Block System for the Working of Single Lines, as contained in Appendix VI., or the Telephone Block System (when authorised), must be brought into force for all trains—whether on Staff or Ticket—running over the Section or Sections on which a Staff Ticket is in use.

Block Instruments are provided at Belgrave, Selby, Aura, Emerald, Cockatoo and Gembrook. The keys of the Electric switches at Selby, Aura, Cockatoo and Gembrook are in charge of the Station-master, Upper Ferntree Gully. There is telephone communication on the Line.

(c) **Belgrave.**— A special Box, with hinged cover, secured by a standard padlock, has been provided instead of an ordinary Staff Exchange Box for the Emerald Section; see Instructions, pages 210-211.

When it is necessary for a train to pass through after the employees at Belgrave have left duty, the Train Staff for the Section (in the case of a Down train) must be placed in the Box prior to the Station-master going off duty. In the case of an Up train, the Station-master must place the Signal controlling the entrance to Section Belgrave-Upwey to the "Proceed" position before leaving, and must again be on duty in ample time to prevent delay to the next Down train at Upwey.



## BLOCK WORKING INSTRUCTIONS.

The Guard of a Down train must unlock the Box, obtain the Staff for the Emerald Section, and deliver it to the Driver. In the case of an Up train the Guard must obtain the Staff from the Driver and place it in the Box. The cover of the Box must be closed and locked after use.

(d) **Emerald.**—A Staff Exchange Box is in use at Emerald in connection with the first Down Goods train. The Exchange Box must be worked in accordance with the instructions contained in pages 210-216; the Station-master at Emerald and the Guard of train are to arrange accordingly.

**3. Special Arrangements.**—(a) When traffic requirements render it necessary to open Aura or Cockatoo as a Staff Station, the Metropolitan Superintendent must arrange to place a competent employe in charge of the Station, and the following method of working will then become effective:—

**TEMPORARY STAFF STATIONS.**—(b) Ordinarily the Staff Sections are:—Belgrave-Emerald, and Emerald-Gembrook, but when in connection with special traffic it is necessary to open Aura, or Cockatoo, or both, Stations, the permanent Train Staffs will be withdrawn, and Temporary Staff Stations and Sections will then be as shown hereunder:—

- (i.) When Aura is open, but not Cockatoo, the Sections will be Belgrave-Aura; Aura-Emerald; Emerald-Gembrook.
- (ii.) When Aura and Cockatoo are open, the Sections will be Belgrave-Aura; Aura-Emerald; Emerald-Cockatoo; Cockatoo-Gembrook.

(c) The Temporary Staffs are distinguished by having metal symbols attached thereto. The Temporary Staffs and Boxes are kept at Upper Ferntree Gully, and the Metropolitan Superintendent must arrange for them to be placed and withdrawn, according to requirements and in conformity with clause 16 of the instructions shown on page 560, and for the safe custody of the Permanent Staff or Staffs during the time that the Temporary Staffs are in use.

- (i.) Each set of Temporary Train Staffs is locked in a separate box provided for that purpose, and the key of each box, enclosed in a separate envelope, addressed "Metropolitan Superintendent, Upper Ferntree Gully," must be secured in the safe in the Station-master's office.
- (ii.) When the opening of any of the Temporary Staff Stations has been authorised, the Station-master must hand to the employe appointed by the Metropolitan Superintendent the sealed envelope containing the key of the box in which the required Temporary Staffs are secured. When the Temporary Staffs are again withdrawn, the appointed employe must secure the Temporary Staffs in the same box, and hand the key, addressed as shown above, to the Station-master, Upper Ferntree Gully, who will be responsible for the custody of the box and key until their use is again authorised.
- (iii.) Before handing the Station-master the sealed envelope containing the key, the appointed employe must, in addition to addressing the envelope as above, endorse it with his name

## BLOCK WORKING INSTRUCTIONS.

and title, and the time and date. Before any Train Staff (temporary or otherwise) is handed to the Station-master, the Staff or Staffs which are required to be withdrawn from use must be locked in the box, and the key dealt with as above.

**4. Aura.** — (a) There are no Fixed Signals at Aura, and whenever it is necessary to cross trains at that Station the instructions contained in pages 415-416 must be observed. The Metropolitan Superintendent will arrange if necessary for a Hand-signalman to be provided.

(b) There is only one Road in addition to the Main Line at Aura, and arrangements must be made by the Metropolitan Superintendent to have No. 2 Road kept clear during the time Aura is open as a Staff Station.

**5. Cockatoo.** — The Signalman at Cockatoo must have a Clear Line through No. 1 Road as far as the fouling point at Up end of Nos. 1 and 2 Roads before giving permission for a train to approach from Gembrook, and after the "IS LINE CLEAR?" signal has been accepted, no obstruction of the Line on which the train has to run must be allowed until such train has arrived or the "Cancelling Signal" has been received.

Unless instructions are issued to the contrary, when Cockatoo is open as an Intermediate Telephone Block Post the "ACRE" message for Up trains must not be sent until the train has passed the fouling point at Up end of Nos. 1 and 2 Roads.

**6. Aura and Cockatoo.**— Rule 26, Appendix VI.—When the last train for the day is an Up train, and it has arrived complete, and the "Train Arrival" Signal has been sent to, and acknowledged by, the Signalman in the rear, the Signalman at Aura or Cockatoo may, providing the "Train Arrival" Signal for the preceding Up train has been received and he is in possession of the Train Staffs for the Staff Section on each side, send the "Closing of Signal-box Signal" (vide Rule 26), and on receipt of acknowledgment turn the Switch to "Out," thus switching out the Station as a Block Post. The Signalman receiving the "Closing of Signal-box" must, after acknowledging such Signal, send the Telephone Call signal to test the through connection which has been established, and advise the "Switching out" Station of the result.

Under this arrangement it will not be necessary to work the Block Instruments between Cockatoo and Emerald or between Aura and Belgrave after the train preceding the last Up train has cleared the Section ahead, and the Stations named may be closed as Temporary Staff Stations or Block Posts by the last Up train.

Selby, Aura and Cockatoo may also be switched in as Block Posts or opened as Telephone Block Posts, as required, and when so published.

For instructions respecting Intermediate Block Posts where Fixed Signals are not provided, see clause 4, of Train Staff and Ticket Instructions, page 550.

**Upper Fern Tree Gully.**—See Special Instructions, pages 864-865, re working of first Down and last Up Goods trains.

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**GEMBROOK.**

**Clearance of Structures, Etc., on Narrow Gauge Lines.**

1. Clause 2 of the Instructions on page 82 respecting Clearances of Structures, Stacks, etc., has been modified in respect of certain Timber Sidings at Gembrook as set out hereunder, and employes engaged in shunting operations, etc., are to exercise special care in order to ensure the safety of themselves and Departmental Rolling Stock.

(a) In respect of the sites in the two Sidings at Gembrook, locally known as the Crane Road and Russell's Road, the lessees have, until further notice, been granted a modification in respect of the clearance to be observed, which, in cases where the line is on a curve, has been reduced from 7 feet to 5 feet 6 inches.

(b) No variation has been granted regarding the clearance on Narrow Gauge "Straight" lines.

2. (a) On Russell's Siding, two skids, a winch, and chaff shed, belonging to Mr. A. E. Russell, erected close to the dead-end of this Siding are within the clearance of 5 feet 6 inches mentioned above, and until further notice these will remain in their present position.

(b) Engines are to stop short of, and not pass, the nearer of these skids.

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**OAKLEIGH.**

The exit from Siding "A" to Down Main Line is secured by means of an Annett Lock, the key of which is normally secured in the Interlocking Frame at Box "B," and in the absence of the Key from the lock on the Frame all the Down Signals leading to the Main Down Line and the Signals to and from the Engine Road are secured at the Stop position.

The Signaller at "B" Box must have "Line Clear" for any train that is to start from Sidings "A" before he hands over the Key to the employe to work the Points; and the latter must return the Key immediately after use.

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**FRANKSTON.**

**Line Clear for Up Trains.**

1. At Frankston there must be a Clear Line on No. 1, 2 or 3 Road as far as Post 8, 9 or 10, respectively, and the Points must be set for the Clear Line before permission is given for an Up train (Light engine excepted), to approach; after permission has been given for an Up train to approach, no obstruction of the Line for which the Signaller has set the Points must be allowed until the train has been brought to a stand at the Home Signal, or has passed into the Section in advance, or the Cancelling signal has been received from the Staff Station in the rear.

2. Light Engines may be accepted from Baxter or Langwarrin (when the latter is an Electric Staff Station), provided the Line be clear to the Up Home Signal.

## BLOCK WORKING INSTRUCTIONS.

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**3.** The Electric Staff System is worked between Frankston and Baxter, and whenever the Signaller is unable to personally receive or deliver the Staff, the Station-master must perform this duty or arrange for it to be carried out by an employe certified as competent by the Block and Signal Inspector, and who, when performing such duty, must wear a Staff Badge.

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### BAXTER.

**1.** Before permission is given to Frankston or Langwarrin (when the latter is an Electric Staff Station) to obtain a Staff for a Down train there must be a Clear Line in No. 1 or No. 2 Road as far as the Home Signal on Post No. 3, and the Points set for the Clear Line.

**2.** After permission has been given for a Down train to approach, no obstruction of the Line for which the Signaller has set the Points must be allowed until the train has been brought to a stand at the Down Home Signal (Post No. 2), or has arrived in the Station Yard or the Cancelling signal has been received from the Staff Station in the rear.

**3.** (a) The foregoing instructions shall not apply to a Rail Motor train or Light Engine, but when the Driver of a Rail Motor Train or Light Engine finds the Down Distant Signal at Baxter at Danger, he must bring his train or engine to a stand at such Signal, and then proceed cautiously towards the Home Signal.

(b) In every case, the Driver of the Rail Motor train must be accompanied by an assistant when proceeding from Frankston or Langwarrin (when Langwarrin is open as a Staff Station) to Baxter; the Station-master, Frankston, must provide the assistant, and arrange for Baxter to be so advised.

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### SUNBURY.

Light Engines must not be permitted to proceed towards the Up Starting Signal, Post No. 4, to wait for Line Clear, but must be detained at the platform until Line Clear is obtained from the Block Post in advance.

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### REDESDALE JUNCTION.

When Redesdale Junction is closed the Junction Points must be set and secured for the Bendigo Line, and the Up and Down Signals placed to the Proceed position. An Annett Key is fitted to the Interlocked frame, and the Signaller will be responsible for custody of the Key when the Box is closed.

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### CASTLEMAINE.

#### Line Clear for Down Trains.

**1.** (a) The Is Line Clear? Signal must not be accepted from Elphinstone by the Signaller at "A" Box for a Down train which has to arrive in Siding No. 1 unless the Points for the Siding are set, and the

## BLOCK WORKING INSTRUCTIONS.

Line is clear through No. 2 Platform Road and No. 1 Siding up to Post No. 23 at "B" Box, and he has arranged with the Signalman at "B" Box regarding the train.

(b) After permission has been given for a Down train which has to arrive in No. 1 Siding, to approach on the Northern Line, no obstruction of the Down Line or No. 1 Siding for which the Signalman has set the Points must be allowed until the train has been brought to a stand at the Home Signal, Post No. 4, or has passed into the Siding, or the **Cancelling** Signal has been received for it from Elphinstone.

2. No train or engine must be permitted to run from "B" Box to "A" Box *via* No. 1 Siding. Except as shown hereunder, No. 1 Siding must not be used to stand vehicles in, but must be kept for the arrival of Goods trains from the Maryborough or Northern Lines.

3. (a) The **Is Line Clear?** signal must not be accepted from Elphinstone by the Signalman at "A" Box, for a train which has to arrive in No. 3 Road (Maryborough Platform Road), or in No. 2 Road (Down Northern Line Platform), unless the Points are set for the Road the train is to arrive upon, and also set from that Road to the Down Northern Line, and the Line is clear *via* No. 2 Road or No. 3 Road, as the case may be, as far as Post No. 22 at "B" Box.

(b) After permission is given for a Down train to approach, which has to travel *via* No. 3 Road or No. 2 Road, no obstruction of the Line for which the Signalman has set the Points must be allowed until the train has been brought to a stand at the Down Home Signal, Post No. 4, or has passed into the Section in advance, or the **Cancelling** Signal has been received for it from Elphinstone.

4. Down Northern Line trains, which are booked to run beyond Castlemaine on the Northern Line, must not be turned through No. 3 Road.

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### CRESWICK.

At Creswick, before permission is given for a train to approach from Waubra Junction, the Signalman must have a Clear Line on No. 1 Road as far as Post No. 6, or on No. 2 Road into Siding "C," and the Points set for the Clear Line. After Permission has been given for the train to approach, no obstruction of the Line for which the Signalman has set the Points must be allowed until the train has been brought to a stand at the Home Signal (Post No. 2), or has arrived in the Station Yard, or the **Cancelling** Signal has been received from the Signal-box in the rear; see page 413.

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### BACCHUS MARSH.

#### Giving Permission for a Train to Approach.

1. Before giving permission for a train to approach in either direction, there must be a clear Line to the Down Home Signal (Post No. 2) in the case of Up trains, and to the Up Home Signal (Post No. 7) in the case of Down Trains, and the Points set for the Clear Line.

## BLOCK WORKING INSTRUCTIONS.

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**2.** After permission has been given for a train in either direction to approach, no obstruction of the Line for which the Signaller has set the Points must be allowed, nor must the Points be altered, until the train has been brought to a stand at the Home Signal, or has passed into the Section in advance, or the **Cancelling** signal has been received from the Staff Station in the rear.

**3:** (a) Except as specified in clause (c), below, trains must not be allowed to approach Bacchus Marsh from Parwan and Ingliston (or Rowsley when a temporary Block Post), at the same time.

(b) The Signaller at Bacchus Marsh may give permission to Parwan to obtain a Staff, if necessary, when Ingliston has a Staff out of the Instrument for any Up train for which Rowsley is a Block Post. Should, however, a Down train be approaching from Parwan, the Signaller at Bacchus Marsh must not send **Line is Clear** to Rowsley until the Down train has arrived, and the line is clear to the Down Home Signal (Post No. 2), and the Points are set for the Clear Line. After having given permission for the Up train to approach from Rowsley an obstruction on the Clear Line must not be permitted, and the Points must not be altered until the train has arrived within the Station Yard or it has stopped at the Up Home Signal, Post No. 7.

(c) Permission may be given for a Light Engine to approach from Ingliston; or Rowsley (when Rowsley is a Temporary Block Post, see special instruction, pages 748-749), at the same time that a Down train is approaching from Parwan.

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### BALLARAT "B" BOX.—(Lydiard-street.).

#### Line Clear for Up Trains.

Before giving permission for an Up train to approach, the Signaller at Ballarat "B" Box (Lydiard-street) must have a Clear Line as far as the Lydiard-street Level Crossing, and the Points set for the Clear Line; and, after permission has been given for the train to approach, no obstruction of the Line for which the Signaller has set the Points must be allowed until the Up train has been brought to a stand at the Home Signal, or has arrived in the Station Yard, or the **Cancelling** signal has been received from the Box in the rear.

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### BEAUFORT.

#### Line Clear for Up Trains.

Before giving permission for an Up train to approach, the Signaller at Beaufort must have a Clear Line as far as the Home Signals on Post No. 6, and the Points set for the clear Line; and, after permission has been given for the train to approach, no obstruction of the Line for which the Signaller has set the Points must be allowed until the Up train has been brought to a stand at the Home Signal, or has arrived in the Station Yard, or the **Cancelling** signal has been received from the Staff Station in the rear.

## BLOCK WORKING INSTRUCTIONS.

### STAWELL "A" BOX. Line Clear for Down Trains.

1. (a) Except as shown in clause 2 hereof, at Stawell "A" Box there must be a Clear Line in No. 1, 2 or 3 Road to the Down Home Signal (Post No. 7) at "B" Box, the Points must be set for the Clear Line, and the Controlled Signal applying to it released, before permission is given for a train to approach from Great Western.

(b) After permission has been given for a Down train to approach, no obstruction of the Line on which such train requires to run must be allowed, nor must the Points be altered, until the train has been brought to a stand at the Home Signal (Post No 2), or has passed into the Station Yard, or the **Cancelling** signal has been received from the Staff Station in the rear.

2. (a) Passenger trains; Mixed trains (having a vehicle limit of equal to twenty (20) vehicles), Light Engines, engines with only a Brake-van attached, and Rail Motor Inspection Cars, are exempt from the conditions of clause 1, and must be accepted in accordance with Rule 4, Appendix VII.

(b) It will be the duty of the Signalman, Great Western, to inform the Signalman, Stawell, if an approaching train be one of those described in sub-clause (a). Each Signalman must record the message in the Train Register Book, and enter the time when sent and received.

### NORTH GEELONG AND GEELONG. Working of Goods Trains.

1. When the Signalman at Box "A" or Box "C," North Geelong, receives the **Is Line Clear?** Signal for an approaching Goods train, he must immediately notify the Signalman "B" Box, and the latter must pass the information on to the Signalman at "A" Box, Geelong, who must at once inform the Yard Foreman. Similar information must also be given by the Signalman at "B" Box, North Geelong, and the Signalman at "A" Box, Geelong, when a train of more than eight vehicles is ready to leave the North Geelong Sidings. No information need be sent of trains of eight vehicles or less, and, subject to the Block Rules, "A" Box may accept them when offered.

2. The Signalman at "A" Box, Geelong, must not give permission for a Goods train to approach from "B" Box, North Geelong (a train of eight vehicles or less from the North Geelong Sidings excepted) until the Yard Foreman instructs him to do so. The Yard Foreman must not instruct the Signalman at "A" Box, Geelong, to permit a Goods train to approach until he can deal with it in the Yard, so that the train will not stand over and obstruct the Road Crossings outside "A" Box.

3. Yard Foreman, in this instruction, means the Yard Foreman or the employe in charge of the Yard for the time being.

### GEELONG "B" BOX. Line Clear for Up Trains.

1. The Signalman at "B" Box must not give permission for any Up train to approach from South Geelong unless the Line on which such train is to arrive is clear as far as the Up Signal that controls the exit

## BLOCK WORKING INSTRUCTIONS.

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from that Line, nor until the Points have been set for the clear Line and the Signalman at Box "A" has taken the Electric Control off the lever of the Signal for the train to enter the Station or Yard; the Signalman, "B" Box, must avoid stopping an Up train unnecessarily in the Tunnel.

**2.** After permission has been given for an Up train to approach, no obstruction of the Line for which the Signalman has set the Points must be allowed until the train has been brought to a stand at the Home Signal (Post No. 28), or has arrived at the Platform, or the **Cancelling** signal has been received from the Staff Station in the rear.

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### BANNOCKBURN.

**1.** Trains must not be allowed to approach Bannockburn from Lethbridge and Gheringhap under Rule 3 (see Appendices **iv.** and **vii.**, Book of Rules and Regulations), at the same time.

**2.** For Up trains, the **Is Line Clear?** signal must not be accepted for any train in accordance with Rule 3, until the preceding Up train is a quarter of a mile on its journey beyond the Station, or has been shunted clear of the Main Line.

See Instructions relating to the use of the "Warning Signal for Up Goods Trains," page 662.

**3.** When permission has been given for a train to approach in accordance with clause (1) or (2) of this instruction, no obstruction of the Line on which such train requires to run must be allowed until the train has been brought to a stand at the Home Signal, or has passed into the Section in advance, or the **Cancelling** signal has been received from Lethbridge.

**5.** When an Up train is approaching under the **Section Clear but Station or Junction Blocked** signal, the Home Signal must be kept at the Stop position until the Down train has passed clear of the Up Line.

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### LETHBRIDGE—MEDINA—MEREDITH.

**1.** Medina Siding is situate at 66 miles from Melbourne, between Meredith and Lethbridge, and connected to the Up Main Line only. The Points in Main Line are trailing for Up trains, and are rodde to safety Points in the Siding; the Siding is provided with a Catch Dead-end at Up end, and has accommodation and loading space for 15 trucks. The gradient is the same as on Main Line, i.e., about 1 in 123 falling from Siding towards Main Line.

**2.** There is a Two-lever Ground Frame situated near the Main Line Points. The Black lever works the Points, and the Red lever works an Up Home Signal. The normal position of the levers is Point lever back in frame, and Home Signal lever pulled over. The levers are interlocked and secured in their normal position by an Annett Lock on the Home Signal (Red) lever. The Annett Key, which is also the Key of the frame at Lethbridge Quarry Siding, is in the custody of the Signalman at Meredith.



## BLOCK WORKING INSTRUCTIONS.

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**3.** The Guard of any Up train that is authorised to work at the Siding will be held responsible for the proper working and securing of the Points and for the working of the Signal, and also for securing any vehicle left in the Siding. On the arrival of a train that is required to work at the Siding, the Home Signal must be immediately placed to the "Stop" position, and kept in that position until the train is quite ready to proceed on its journey, when it must be placed at "Proceed," and locked in that position by means of the Annett Key. The Guard must be careful to see that the Home Signal goes to "Stop" or "Proceed" according to the position of the lever, and that the wire is in adjustment; an adjusting apparatus is provided at the frame for this purpose. When a train which has worked at the Siding arrives at Lethbridge, the Guard must hand over the Annett Key to the Signaller, who must return the Key to Meredith by the first available train.

**4.** The Lamp of the Up Home Signal at Medina must be lighted at night, when it is not practicable for other than a night train to work at the Siding. Trains must not work at the Siding in foggy weather, nor when the Block Instruments for the Up Line are out of order.

**5. (a) Medina an Occasional Block Post.**—When specially authorised by the General Superintendent of Transportation, Medina may be opened as a Temporary Block Post, and on such occasions trains must be signalled in accordance with the following instructions:—

(i.) **Down Trains.**—Under the Rules for Train Signalling by Block Telegraph on Double Lines of Railway. See Appendix iv., Book of Rules and Regulations.

(ii.) **Up Trains.**—Under the same Rules as those referred to in sub-clause (i.) above, except that permission must not be given for a train to approach from Meredith until "Line Clear" has first been obtained for such train from Lethbridge.

This applies also when, in the event of any failure of the Block Instruments or Bells, the Morse Instruments are being used (see Block Rule 27); if, however, the Morse Instruments also have failed, an Up train must not be allowed to leave Meredith until the full running time of the Section Meredith-Lethbridge has elapsed.

(b) The **Train Arrival** signal for any Up train must not be given to Meredith until the **Train Arrival** signal for such train is received from Lethbridge

(c) The Down Signals, which are normally crossed as per Regulation 91, must be brought into use by the Signaller when Medina is opened, and the crosses must be replaced by him when it is closed as a Block Post.

**Note.**—It will be seen from the above that as far as Up trains are concerned Medina (when open) is only a repeating Station for Lethbridge.

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### LETHBRIDGE QUARRY SIDING.

See Special Instructions, page 770-771.

## BLOCK WORKING INSTRUCTIONS.

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### HEATHCOTE JUNCTION.

#### Up Trains from North-Eastern and Bendigo Lines.

After accepting any Up train on the Bendigo Line, the Signalman at Heathcote Junction must not accept the Is Line Clear? signal from Wandong for an Up North-Eastern Line Goods train unless it will have time to reach Wallan before the Bendigo Line Train is due to pass the Junction. As far as possible, care should be taken to avoid stopping an Up North-Eastern Line Goods train at the Up Home Signal.

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### SEYMOUR.

#### Assisting Down Goods Trains.

In a special instruction on pages 794-795, provision is made for Down Goods trains to be assisted when necessary by an engine in the rear, from Seymour towards Mangalore up to mileage 63 miles 50 chains, where there is a "Stop" Board.

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### GRAVELSIDE.

1. Gravelside is situate at  $66\frac{1}{4}$  miles between Seymour and Mangalore, and when open as a Block Post, trains are to be signalled in accordance with the following instructions:—

- (i.) **Down Trains.**—Under the Rules for Train Signalling by Block Telegraph on Double Lines of Railway. See Appendix iv., Book of Rules and Regulations.
- (ii.) **Up Trains.**—Under the same Rules, except that permission must not be given for a train to approach from Mangalore until "Line Clear" has first been obtained from Seymour.

2. The **Train Arrival** signal for any Up train must not be given to Mangalore until the **Train Arrival** signal for such train has been received from Seymour.

3. There are no Fixed Signals for the Up Line at Gravelside, and no Up train must be stopped there except in case of emergency or unless required by the Rules, Regulations, or other Instructions. When such a course is necessary, two Detonators, fixed ten yards apart, must be placed on one rail of the Line in front of the office, and a Red Hand Signal exhibited to the Driver and Guard of an approaching train.

**Note.**—It will be seen from the above that as far as Up trains are concerned Gravelside (when open) is only a repeating Station for Mangalore.

## BLOCK WORKING INSTRUCTIONS.

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### BENALLA AND WODONCA.

In connection with the running of the Down Mail Train on Sundays it will only be necessary for one Signalman at each of the above places to be on duty to work both "A" and "B" Boxes. The Signalman who comes on duty must, before taking charge of "A" Box, release the Signal control in "B" Box, applying to No. 1 Road, provided that Road be clear.

The Station-master at each place must arrange for the Signalman being on duty in time. See Instruction "Obtaining an Electric Staff earlier than usual, page 656.

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### EVERTON.

#### Line Clear for Up Trains.

The Signalman at Everton must have a Clear Line through the Station Yard as far as the fouling point of Nos. 2 and 3 Roads and the Points set for the Clear Line before giving permission for a train to approach from Beechworth, and after the **Is Line Clear?** signal has been accepted, no obstruction of the Line for which the Signalman has set the Points must be allowed until such train has arrived. It is not intended that this shall prevent the Bright Line train arriving at the platform, provided it does not foul No. 2 Road.

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### FERNBANK.

Authority is granted for the Signalman at Fernbank to go off duty after the departure of last Up Goods train for the day and before the arrival of the train at Stratford.

On arrival of the train at Stratford the Signalman must obtain the Staff from the Driver, and provided the train is complete, place such Staff in the pocket of the Instrument until intimation is received on the following morning that the Signalman at Fernbank is in attendance, when the Staff must be inserted in the Instrument under the Train Arrival signal.

On Tuesdays, Thursdays and Saturdays, however, the Staff received from the last Up Goods may be used for the 4.30 p.m. Down Passenger train (No. 25) without being placed through the Instrument at Stratford, and in this connection the Signalman, who receives the Staff from the Driver of the Up Goods, must not place it through the Instrument; and when it is required for the 4.30 p.m. Down Passenger he must hand it to the Driver.

A Staff Exchange Box is in operation at Fernbank for No. 25, and when this train travels on the Staff used by the last Up Goods train the Signalman at Fernbank, after coming on duty, must send the **Cancelling** instead of the **Train Arrival** signal to Stratford.

## BLOCK WORKING INSTRUCTIONS.

### ANDERSON.

When it becomes necessary to shunt on the Main line at the Up end of Anderson Station Yard the **Blocking Back** (2-4) signal must not be used, but a Staff must be obtained to do the work, in accordance with Rule 3 or Rule 18 of Appendix **vii.**, Book of Rules and Regulations, as the conditions of the case may require.

### WORKING OF FIXED SIGNALS AND INSTRUMENTS, AND DELIVERY OF STAFF OR TABLET, Etc.

*The attention of officers in charge at Stations is directed to clause 2 of the Instructions supplementary to Regulation 112, page 169.*

The employe who works the Block, Tablet, or Electric Staff Instruments must also work the Fixed Signals, and, except as provided hereunder, must not delegate this duty to any other person:—

**Camperdown.**—During the hours that the Station-master is on duty, the levers of the Fixed Signals, which are on the platform, may be worked by him, and the Electric Staff Instruments by a qualified clerk in the office; but in every case the Station-master will be responsible for having a proper understanding with the employe working the Instruments. The Station-master may also receive the Staff from or deliver it to the Driver; but unless the Station-master has himself withdrawn the staff from the Instrument it must be handed to him by the employe who works the Staff Instrument. In every case the employe who sends the **Train Arrival** Signal will be responsible for seeing that the train is complete.

**Hamilton.**—Whenever the Signalman at Hamilton is unable to personally deliver or receive the Train Staff, the Officer-in-charge must arrange for this duty to be carried out, either personally, or by an employe who has been certified to as competent by the Block and Signal Inspector. The employe who carries out this duty will be responsible for delivering the Staff to, and receiving it from, the Driver, and also for promptly handing the Staff received to the Signalman.

Whenever this course is necessary the Signalman must notify the Officer-in-charge in time to avoid delay, and the Officer-in-charge must arrange for the appointed employe to go to the Signal-box and act under the instructions of the Signalman.

In every case the appointed employe when performing this duty must wear the Staff Badge, which, when not in use, must be kept in a convenient place in the Station-master's office.

**Daylesford.**—The employe who works the instruments must, before giving permission for a train to approach, first see that the Line is clear as far as the Home Signals, and also that the controlling lever stops the Signalman from giving a conflicting Signal. He must also keep the controlling lever in such position until the train signalled has arrived complete in the Yard. Should the **Train Divided, Vehicles Running Away**, or other emergency signal be received, the person in charge must immediately inform the Signalman at the Junction, and take joint action with him. Telephone communication is provided between the Station and the Junction.

## BLOCK WORKING INSTRUCTIONS.

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**Clunes and Eaglehawk.**— At these Stations, when, owing to other important duties the employe who works the Electric Staff Instruments cannot attend to the Fixed Signals, he may depute one of the Staff (who has been certified by the Block and Signal Inspector as competent) to work them for an approaching train; but both employes will be held responsible for the Rules and Regulations being complied with. The employe deputed to work the Fixed Signals must only do so when instructed, and must not permit a Running Line to be fouled, either **inside** or **outside** the Home Signal, without the permission of the employe in charge of the Electric Staff Instruments.

**Warragul.**— At Warragul, when an Up train is ready to start, and the Driver is not in possession of the Train Staff, and it is not practicable for the Signaller to personally deliver it to the Driver without causing delay to other operations, the duty of delivering the Train Staff to the Driver may be entrusted to a senior Porter or other adult employe certified as competent by the Block and Signal Inspector.

Whenever this course is necessary, the Signaller must notify the Station-master in time to avoid delay, and the Station-master must arrange for the appointed employe to go to the Signal-box and act under the instructions of the Signaller. In every case the appointed employe, when performing this duty, must wear the Staff Badge, which, when not in use, must be kept in a convenient place in the Station-master's office.

**Nyora.**— During the hours that the Station-master is on duty, the Electric Staff Instruments and the levers on the platform may be worked by him, but in every case the Station-master will be responsible for having a proper understanding with the employe in charge of the Staff Instruments.

The Station-master may also receive the Staff from, or deliver it to, the Driver, but unless the Station-master has himself withdrawn the Staff from the instrument, it must be handed to him by the employe who works the Staff Instrument. The Station-master will be responsible for handing the Staff to the Driver of the train for which it is intended. In every case the employe who sends the "Train Arrival" Signal will be responsible for seeing that the train is complete.

**Williamstown.**— The Train Staff and Ticket System is worked between Williamstown and Williamstown Pier. The Signaller at Williamstown cannot personally receive or deliver the Staff for the Section, and this duty must, therefore, be carried out by the Officer-in-Charge of the Station on each shift, who will be responsible for delivering the Staff to and receiving it from the Driver, and for the safe custody of the Staff under the supervision of the Signaller. The Staff must be shown to the Signaller on arrival of each train.

**Hawthorn.**— The Train Staff and Ticket System is worked between Hawthorn and Kew. The Signaller at the Signal-box cannot personally receive or deliver the Staff for the Section, and, unless instructions are issued to the contrary, this duty must, therefore, be carried out by the Officer-in-Charge of the Station on each shift, or by an employe certified

## BLOCK WORKING INSTRUCTIONS.

as competent by the Block and Signal Inspector, and who will be responsible for delivering the Staff to and receiving it from the Driver, and for the safe custody of the Staff; Staff Tickets are not ordinarily in use on the Kew Line. See also pages 559 and 856.

**Ringwood.**—At Ringwood, when a train is ready to start and the Driver or Motorman is not in possession of the Staff for the Section, and it is not practicable for the Signaller to deliver it to the Driver or Motorman without causing delay to other operations, such duty may be performed by the Station-master or Assistant Station-master, to whom the Signaller must hand the Staff after releasing it from the instrument. The Station-master or Assistant Station-master will be responsible for handing the Staff to the Driver of the train for whom it is intended.

**Frankston.**—At Frankston, whenever the Signaller is unable to personally receive or deliver the Staff, the Station-master must perform this duty or arrange for it to be carried out by an employe who has been certified as competent by the Block and Signal Inspector, and who, when performing this duty, must wear a Staff Badge; he will be responsible for delivering the Staff to, or receiving it from, the Driver, and also for promptly handing the Staff received to the Signaller.

## BOOKS AND FORMS.

The undermentioned Books and Forms are necessary in connection with Double Line Working, and Single Line Working on Lines worked under the Electric Train Tablet or Electric Train Staff System. Some are required only in respect of certain Sections and, where this is so, they are specified.\*

## DOUBLE LINES.

BOOKS.	Schedule Letter and Number.	Remarks.
Train Register Book ... ..	T.R. 1	Large size for busy Sections
Train Register Book ... ..	T.R. 2	Small size for less busy Sections
FORMS.		
Special Telegraph Form ... ..	T.R. 21A	For Message "A" } Train unusually long time in Section
Special Telegraph Form ... ..	T.R. 21B	For Message "B" }
Working of Traffic of a Double Line over a Single Line during Repairs or Obstruction	T.R. 4	
Single Line Working during Repairs or Obstruction, Cancellation Order	T.R. 5	
Guard's Wrong Line Order ... ..	T.R. 43	
Signaller's Wrong Line Order ... ..	T.R. 6	
Driver's Wrong Line Order ... ..	R.S. 224	
Signaller's Notice of Resumption of Block Telegraph Signalling	T.R. 7	Card; see Block Rule 27
Signaller's Caution Order for Driver to pass defective Signal at the Stop position	T.R. 18B	See instruction on page 130
Traverser Out of Order ... ..	T.R. 21E*	Used at St. Kilda
Traverser In Order ... ..	T.R. 21FF*	" " "
Return in connection with use of Emergency Release	T.R. 22	Used where there are Electrically Controlled Signals. See clause 5, page 135.

## BLOCK WORKING INSTRUCTIONS.

## BOOKS AND FORMS—Continued.

## SINGLE LINES.

BOOKS.	Schedule Letter and Number.	Remarks.
Train Register Book ...	T.R. 11	Used only on Sections where the use of a Bank Engine Key is authorised
Bank Engine Key Book ...	T.R. 8	
FORMS.		
Working of Single Lines by Pilotman during Obstruction	T.R. 9	See instructions on page 130.
Working of Single Lines by Pilotman during Failure of Apparatus	T.R. 10	
Signalman's Caution Order for Driver to pass a defective signal at the Stop Position	T.R. 18B	
Working of Single Lines by Pilotman—Cancellation Order	T.R. 17	
Damaged Tablet or Staff Form ...	—	To be furnished by Electrical Fitter
Receipt for Damaged Tablet or Staff	—	

\* For list of Books and Forms used on Lines worked under the Train Staff and Ticket System see page 551.

### SIGNAL CODE FOR THE ELECTRIC BELLS USED ON THE SUBURBAN LINES.

NOTE—Passenger includes Mixed Trains.

Line or Section of Line.	Train.	NO. AND DESCRIPTION OF RINGS.		
		Long.	Short.	Long.
North-Eastern Line ...	Passenger ...	...	2	...
North-Eastern Line ...	Goods ...	2	...	...
Bendigo Line ...	Passenger ...	...	3	...
Bendigo Line ...	Goods ...	3	...	...
Bacchus Marsh Line ...	Passenger ...	...	3	3
Bacchus Marsh Line ...	Goods ...	3	3	...
Geelong Line ...	Passenger ...	...	2	1
Geelong Line ...	Goods ...	1	3	...
Arden-street ...	Goods ...	...	5	3
Kensington ...	Goods ...	...	5	2
Newmarket ...	Goods ...	...	5	1
Flemington R'course or Show Grounds to Flinders-street	Passenger ...	1	2	1
†Flemington R'course or Show Grounds	Second class ...	...	2	1
Flemington R'course or Show Grounds	Horse special ...	...	2	1
†Flemington Racecourse or Show Grounds	First class passenger ...	...	1	1
Essendon Line ...	Passenger ...	1	1	...
Spencer-street and Essendon	Passenger ...	1	1	1
Essendon Line ...	Goods ...	...	2	3
Coburg Line ...	Passenger ...	1	4	1
Spencer-street and Coburg	Passenger ...	1	4	1
Coburg Line ...	Goods ...	4	1	...
Williamstown Line ...	Passenger ...	...	2	2
Williamstown Line ...	Goods ...	2	2	...
Spencer-street and Footscray	Passenger ...	2	3	...
Spencer-street and Newport	Passenger ...	2	4	...
Melbourne and Angliss's Siding	Light engine ...	...	4	4

† Combined First and Second class trains to be described as First class.

## BLOCK WORKING INSTRUCTIONS.

SIGNAL CODE FOR THE ELECTRIC BELLS USED ON THE  
SUBURBAN LINES—Continued.

Line or Section of Line.	Train.	No. and Description of Rings.		
		Long.	Short.	Long.
Melbourne and Angliss' Siding ...	Goods ...	4	4	...
Melbourne and South Kensington ...	Light engine ...	...	6	1
Melbourne and South Kensington (Ab- attoirs Line) ...	...	1	6	1
Melbourne and South Kensington ...	Goods ...	1	6	...
Maribyrnong River Line ...	Goods ...	2	6	...
West Footscray, Sunshine, St. Albans and Sunbury (Suburban) ...	Passenger ...	3	1	...
St. Albans ...	Goods ...	...	4	2
Werribee (Suburban) ...	Passenger ...	...	1	3
Whittlesea Line (via Royal Park) ...	Passenger ...	...	2	4
§Whittlesea Line (via Royal Park) ...	Goods ...	4	2	...
Train or engine to shunt at North Fitz- roy "B" ...	Goods ...	1	5	...
§Victoria Park and Heidelberg (via Royal Park) ...	Goods ...	...	1	5
Port Melbourne Station ...	Passenger ...	...	3	...
Port Melbourne—Princes Pier ...	Passenger ...	...	3	1
Port Melbourne ...	Goods ...	1	3	...
Brighton Line ...	Passenger ...	...	2	...
Brighton Line ...	Goods ...	2	...	...
Oakleigh Line ...	Passenger ...	...	3	...
*Oakleigh Line ...	Goods ...	3	...	...
Mordialloc and Frankston Line ...	Passenger ...	...	2	2
*Mordialloc and Frankston Line ...	Goods ...	2	2	...
Kew Line ...	Passenger ...	...	1	3
*Kew Line ...	Goods ...	1	3	1
Camberwell ...	Passenger ...	...	6	1
Glen Iris Line ...	Passenger ...	...	2	3
Glen Iris Line ...	Goods ...	2	3	...
Ashburton Line ...	Passenger ...	...	4	2
Ashburton Line ...	Goods ...	4	2	2
Box Hill ...	Passenger ...	...	6	...
Gembrook ...	Passenger ...	1	6	...
Ferntree Gully ...	Passenger ...	...	4	3
Lilydale Line ...	Passenger ...	...	4	1
*Lilydale Line ...	Goods ...	4	1	...
Gippsland Line and Flinders-street ...	Passenger ...	...	3	1
Gippsland Line and Flinders-street ...	Goods ...	1	3	...
Prince's Bridge and Clifton Hill ...	Passenger ...	2	1	...
Prince's Bridge and Heidelberg ...	Passenger ...	...	3	2
Reservoir (via Clifton Hill) ...	Passenger ...	2	3	...
North Fitzroy (via Clifton Hill) ...	Passenger ...	...	3	...
All South Suburban Race Trains ...	Flinders-street ...	1	1	...
Parcels Coach ...	...	2	2	2
Fallast ...	All... ..	...	4	...
Light Engine ...	All... ..	4	...	...
Shunting Engine ...	All... ..	...	5	...
To cancel previous signal sent ...	...	...	7	...
Repeat last signal ...	...	...	1	...
To call attention ...	...	1	...	...
Metropolitan and Suburban Goods Trains hauled by Electric Locomotive ...	...	2	2	2

\* In addition to the ordinary rings, Goods trains having trucks to put off at Jolimont yard must be signalled through from Caulfield or Hawthorn, as the case may be, by 3 long and 3 short rings. See special instruction, page 727.

§ See page 689 for supplementary code and bell signals for loose Goods trains between Victoria Park, Fitzroy and Whittlesea.

For the purpose of this Code, trains of Empty Passenger Stock must be rung on as Passenger trains.

(For Notes see next page.)



## BLOCK WORKING INSTRUCTIONS.

## SIGNAL CODE.—Continued.

- \*NOTES.—1. All signals must be acknowledged by repeating them.
2. A short ring is produced by holding key down while counting Two.
  3. A long ring is produced by holding key down while counting Four.
  4. The interval between each ring should be the time occupied in counting 2.
  5. When a train is hauled by an electric locomotive, the description and destination of the train must be signalled on the electric bell by the usual code, and after the correct acknowledgment is received the code for an electric locomotive, i.e., 2 long, 2 short, and 2 long rings, must be sent and acknowledged so that Signalmen will know that the train is hauled by such a locomotive; the same course must be followed where a train hauled by an electric locomotive is assisted by a steam locomotive. Should it be necessary to place at any time any such train into an unwired road, the Transportation Branch employe responsible for making the move must in every case so inform the Drivers of both locomotives before the move is commenced.
  6. When two or more Light Engines are coupled together and the Bell signal has been sent and acknowledged, as many short rings must be given to the Signal-box in advance as there are engines coupled together.
  7. On Lines where Automatic Signalling is in force the Signaller must enter each train in the Train Register Book when the train is described on the Bell.
  8. When there is a Signal-box at each end of a Station, the Signaller after describing the approaching train or engine must denote by short rings the number of Road required for the train or the Road on which a local movement is to be performed; the Code Signal and Road indications should be given together, but interspersed by a long ring as per examples hereunder:—

Train or Engine Movement.	Code Signal.	Long Ring.	No. of Road.
Light Engine to No. 3 Road ...	— — — — —	—	— — —
Pilot or Switching Engine to No. 4	- - - - -	—	- - - - -
North-East Passenger train to No. 1	- -	—	-
Ballast train to No. 3 ...	- - - - -	—	- - -

## Special Instructions.

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### MELBOURNE GOODS YARD—SPECIAL INSTRUCTIONS TO ENGINE-MEN, GUARDS, SHUNTERS AND SIGNALMEN.

1. (a) No. 4 Road is the proper shunting Road for the engine working at West Bank, and Shunters with other Yard engines must, before fouling No. 4 Road at either end, properly protect any such movement against a conflicting movement of the "Bank" Yard engine.

(b) No engine shunting on No. 4 Road must foul the crossings leading from the Lower Level Arrival or Departure across towards the East Yard Arrival unless the Driver is verbally instructed by the Shunter in charge of the gang to do so. The Shunter in charge will then be responsible for seeing that the movement is properly protected before the crossings are fouled.

(c) The Up and Down Gravitation Yard Lines, between Dudley-st. Box and the North Melbourne Gravitation Yard, are worked as a part of the Melbourne Goods Yard. Drivers, Guards, and Shunters must keep a good look-out while running on these Lines.

2. No train or engine proceeding towards Dudley-street from either the East Yard, West Bank, or Lower Level, must foul No. 1 East Yard Arrival Road until the Fixed Signal on Post No. 94 has been exhibited for it to proceed.

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### GRAVITATION AND RECEIVING ROADS.

1. The Gravitation Yard Signals are worked by an authorised employe under the supervision of the Leading Shunter in charge of the Gravitation Yard; no other employe is allowed to work them, unless verbally instructed by the leading Shunter, and then only under his personal supervision.

No train arriving on the Gravitation Receiving Roads must foul any of the other Roads before reaching Post No. 63, unless the Driver is instructed to do so by the Leading Shunter in charge.

2. No engine or vehicle must be turned into the Loop Line (situated between Market Line and Receiving Roads) from the Dudley-street end until the employe in charge of the movement receives permission to do so from the Shunter in charge of the Gravitation Yard.

3. (a) Drivers of train engines or outbound trains on any of the Receiving Roads must clearly understand that they must not foul the entrance or exit of any other road at the North end, but must stop well clear of all fouling points until the Signal is exhibited (Post No. 79) for their train or engine to proceed.

(b) A Yard engine must not enter any of the Receiving Roads from the South end unless instructed to do so by the Leading Shunter or other person in charge, and the Shunter must first obtain permission for

## SPECIAL INSTRUCTIONS.

such movement from the Signalman, Dudley-street Box. The Driver must, however, clearly understand that he must not foul the entrance or exit of any other road at the North end, but must stop well clear of all fouling points unless the Signal is exhibited on Post No. 79 for the engine to proceed, or a Green Hand-signal is exhibited by the Signalman as an intimation that the Yard engine may go forward as far as may be necessary towards Post No. 79.

**4.** (a) Guards or Shunters using any of the Gravitation Roads from Nos. 6 to 14 inclusive, or 23 to 42 inclusive, must see that the engine of which they are in charge does not foul any other Road when moving towards the Gravitation Neck, until the signal to Proceed has been exhibited at the Fixed Signal. Should there be no Fixed Signal applying to the Road occupied by the engine, verbal permission in foggy weather, or during darkness, and a Green Hand Signal at other times must be obtained from the Leading Shunter, Gravitation Yard. After permission has been received, the Shunter in Charge of the engine must see that no vehicles are foul of the intended movements.

(b) Shunting operations may be conducted between Nos. 15 to 22 Roads inclusive, or between "B" Road and Nos. 28 to 37 Roads inclusive, without the Fixed Signals being placed to Proceed, provided the Shunter in attendance walks sufficiently far ahead of the engine to see that the Line is clear, and to prevent any fouling movement; except as prescribed in sub-clause (a) movements must not be made from these Roads towards any other Road, or through the Gravitation Neck.

(c) Before any movement is made from No. 39 to No. 40 Road, the Guard or Shunter, as the case may be, and the Enginemmen, must satisfy themselves that the operation can be safely conducted, and that no engine or vehicle is approaching in either direction on No. 40 Road.

**5.** In the course of any movement from the North side of the Dock into No. 41 or 42 Road, the Shunter must see that the Line leading into these Roads from the Gravitation Receiving Roads is not fouled, until verbal permission to do so is obtained from the Leading Shunter in charge of the Gravitation Yard.

**6.** Any train departing via the Lower Level will have the right-of-way on to No. 5 Road, leading up to the Fixed Signals at Dudley-street. All movements off the West Bank or Old Lower Level Arrival on to No. 5 must first be protected by the Leading Shunter in charge.

**7.** The Driver of any Light Engine going from No. 5a, or No. 6a or 7a Road, toward the neck of the Lower Level, must not foul the latter Road until he has been authorised to do so by a Shunter. After being authorised to proceed to the Lower Level, he must not foul the Road leading through the Gravitation Neck to the Ice Road, unless he has been signalled forward by one of the "A" Shed Shunters, or a Yard Foreman.

**8.** Trains or engines proceeding from Dudley-street that require to enter the North Melbourne Gravitation Sorting Roads, must stop clear of the Cross-over from the Down to the Up Line on the Up side of the Dynon-road Overline Bridge at North Melbourne Station. The Guard or Shunter must from that point obtain permission per the telephone to enter the Gravitation Yard from the Signalman at the Weighbridge Junction Box.

The Signalman at Dudley-street must not allow a Down Light Engine to proceed on the Down Gravitation Yard Line unless he is specially requested to do so by the Guard or Shunter in charge of the engine, who in every case must accompany it.

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**VICTORIA DOCK, GOVERNMENT COOL STORES, LOW LEVEL SIDING, NEW CHAFF AND POTATO SIDINGS AND WEIGHBRIDGE ROAD.**

1. A ground frame of two levers is provided in advance of Post 69 to work Home Signals on Posts 65 and 69, which control all movements to and from Weighbridge Road and Chaff and Potato Sidings. The following instructions in respect to the working of the traffic on these Roads must be observed:—

- (a) The Guard or Shunter of any engine working to or from the Chaff and Potato Sidings and the Weighbridge Road must, before permitting a movement that will foul the Roads leading to the Cool Stores, Coal Berths, or Victoria Dock, first satisfy himself that no conflicting movement is being performed, and when this has been ascertained he must place the Fixed Signal applying to the movement at the "Proceed" position. When the movement has been completed, he must restore the Fixed Signal to the "Stop" position.
- (b) The Guard or Shunter of any Pilot going to or returning from the Cool Stores, Victoria Dock, or Coal Berths Sidings, must bring the engine (or leading vehicle, if pushing) to a stand clear of the Road leading to the Chaff and Potato Sidings, he must then walk to the intersection, and, before signalling the Driver forward, satisfy himself that no conflicting movement will take place, and, further, that the Home Signals on Posts 65 and 69 are at the "Stop" position. He must, in the case of movements from either the Victoria Dock, Cool Stores, or Coal Berths Sidings to the Yard, arrange for his movement to be brought to a stand, clear of the fouling point of the Low Level Siding Road, and then obtain verbal permission from the Leading Shunter-in-Charge of the Neck of the Gravitation before permitting it to proceed.
- (c) No train or engine arriving on the Low Level Siding must foul the Roads leading to the Victoria Dock, Government Cool Stores or Coal berths until such time as verbal permission has been obtained from the Leading Shunter in Charge of the Gravitation for such to be done. The Guard or Shunter in charge of movements from the Gravitation Roads towards Dudley-street, via the Low Level Siding, must not permit such movements to be commenced until verbal permission to do so has been obtained from the Signalman in Charge of the Gravitation Signal-box.

## SPECIAL INSTRUCTIONS.

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2. Drivers of train engines or out-bound trains on any of the Receiving Roads must clearly understand that they must not foul the entrance or exit of any other road at the North end, but must stop well clear of all fouling points until the Signal is exhibited on Post No. 79 for their train or engine to proceed.

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### VICTORIA DOCK.

*The Lines to and from Victoria Dock are worked as a portion of the Melbourne Yard, and are under the supervision of the Superintendent of Melbourne Yards. The Right-hand Line leading from the Yard to the Dock is a Running Line for both directions for the South side entrance.*

1. (a) Between the Melbourne Yard, the Government Cool Stores, and the Dock the public road crosses the Line at various places. There is no fence, and all concerned must, therefore, use great care to prevent accidents, particularly at the Crossings.

(b) A Shunter must, in all cases, take steps to protect each Crossing, keeping it clear of pedestrians and vehicular traffic before giving the Driver a Signal to proceed over it, and this before the leading vehicle is permitted to foul the Crossing. Before vehicles are drawn or pushed over a Level Crossing, the Driver must satisfy himself, either by personal observation or by a Signal received from a Shunter, that all is right for the train to proceed. In the case of an engine unaccompanied by a Shunter, the Fireman must perform the duties specified for the Shunter in respect to the Crossing. The speed over the Crossings must not exceed a rate of 5 miles per hour.

2. When vehicles are being drawn or pushed, the Driver must sound the engine whistle in good time before fouling a crossing. The whistle must also be sounded immediately before making any movement at the Victoria Dock or at the Victoria Freezing Works.

3. When vehicles are being pushed, a Shunter must ride on the leading vehicle, and, during the hours between sunset and sunrise, and in foggy weather, he must, while so riding, exhibit a Red Light.

4. Between sunset and sunrise, and during foggy weather, only one engine is allowed to be outside the Wharf gates, South side entrance. The Gravitation Leading Shunter to arrange accordingly. On the North side, one or more Coal Pilots may work at the same time at all hours, via any of the three entrances on the North-East side.

5. On the new portion of the Dock, engines of any class, except "C" class, may be permitted to run, but until further notice, engines of more than 10 tons weight on one axle must not be allowed to run on the decking of the old portion. For maximum axle load of the various classes of engines, see pages 307-308.

## METROPOLITAN DISTRICT.

**6.** When moving trucks on the Dock Wharf, they must not be loose shunted, neither must trucks be loose shunted on to the Wharf. Before commencing shunting operations at the Wharf, the Shunter in charge must see that no obstructions, such as partially erected gearing, etc., exist, and that all bows or ridge pole uprights at the ends of medium trucks are down, and that all truck doors are properly fastened.

**7.** Owing to the sharp curve in the road leading into the Victoria Freezing Works, engines shunting there should not have more than ten trucks attached. Before any trucks are placed in the works, the Shunter in charge must ascertain the state of the road inside the shed.

**8.** The Shunter in charge must see that empty trucks taken to the Dock do not contain any tarpaulins or lashings.

**9.** The attention of the Leading Shunters who work the Signals on the Gravitation Yard is directed to Regulation 90, with reference to the information to be furnished when changing duty.

**10.** Engines are prohibited from passing over the coal weighbridge, Victoria Dock.

**11.** As a rule, the three Gates leading from the Gravitation Yard to the Dock will be closed and locked, except when required to be opened for shunting operations. When, however, ships are receiving grain at the Dock, the Gates may be left open until the work at the Dock is finished for the day. The Superintendent of Melbourne Yards will issue local instructions with regard to the times of the opening and closing of these Gates. The Gate leading from the Loco. Yards to the Coal Berths will remain open whilst a Coal Boat is working; at other times it must be closed across the Line and locked. The keys of all the Gates must be kept in the office of the Superintendent of Melbourne Yards.

### **MELBOURNE HARBOUR TRUST CRANE SIDING—MELBOURNE YARD.**

The Harbour Trust Crane Siding is now open for traffic in truck loads requiring crane power. Loading and unloading operations will be performed under the supervision of the Goods Superintendent, and the placing and clearing of trucks will be attended to by the staff under the Superintendent of Melbourne Yards.

The above Siding is situated on the Wharf Road, between the Victoria Dock and the River Yarra. It adjoins the River Wharf at approximately 680 yards from Piggott-street Sidings. The single track to and from the Crane Siding leads from the Down end of the left-hand road of Piggott-street Sidings, and extends along on the centre of the Wharf Road which is a Public Roadway.

The following instructions must be observed in connection with the working of any train or engine proceeding to or from Piggott-street Sidings and the Crane Siding:—

**1.** A Scotch Block is fixed at the Down end of Piggott-street Siding, and also at the exit of the Crane Siding, and the Senior Shunter in charge of any movement on the Wharf Road will be responsible for seeing that each Scotch Block is secure across the rail according to requirements.

## SPECIAL INSTRUCTIONS.

The key or keys of the Scotch Blocks are in the custody of the Signaller at the Gravitation Box; when any train or engine is to proceed beyond the Piggott-street Siding, the Senior Shunter in charge must obtain and sign for the keys in the book provided for that purpose and return key or keys immediately on his return to the Yard.

2. (a) There is no loop at the Crane Siding. Only those vehicles which are required to be placed for loading are to be taken to the Crane Siding, and such vehicles must be pushed from Piggott-street.

(b) When a train or engine is being worked from Piggott-street to the Crane Siding it must be accompanied by two Shunters. The Senior Shunter must ride on the leading vehicle when vehicles are being pushed, and on the rear vehicle when the train is returning from the Crane Siding; the second Shunter must walk at a distance of approximately 20 yards ahead of the train or engine, and exhibiting the Red Signal must continue to ring a bell, which is provided for that purpose, and when not in use is in the custody of the Signaller in the Gravitation Box. The Automatic Air Brake must be in operation on every train proceeding to or from the Siding; and the Shunter riding on the leading vehicle must be prepared to apply the Air Brake in case of necessity. During darkness or foggy weather each Shunter must exhibit a Red Light.

(c) Enginemen working on the Wharf Road must exercise special care, and keep a good look-out for Hand Signals, and the speed of any engine on the Wharf Road must not exceed a rate of five (5) miles per hour.

### WEIGHBRIDGE JUNCTION — SOUTH KENSINGTON.

#### Instructions to Signalmen.

Up trains or engines may be turned into Sidings "D" or "H" from South Kensington when the Signaller there is directed to do so by the Yard Foreman; but, in every such case, the Signaller must have a proper understanding with the Signaller, Weighbridge Junction. The Yard Foreman will be responsible for the safe working of each train through to Weighbridge Junction; but the Signaller, South Kensington, must not allow a second engine or train to follow until he has received a telephone message that the preceding engine or train has cleared.

### MELBOURNE YARD AND CITY MARKETS VIA FLINDERS STREET.

1. Every train, Up or Down, proceeding between the Railway Gate and the City Market entrance must be preceded by two men, to keep the Line Clear; one man must walk about twenty yards ahead of the engine, and the other about 10 yards in the rear of the first man. The man in front must carry a bell, and keep it ringing while the train is moving.

2. The man in front on the Down journey must see that the Points at the entrance to the Market, and also those inside the Market are in the proper position.

**METROPOLITAN DISTRICT.**

**3.** Engines must draw trucks both to and from the Markets, and must on no account push trucks in front along the street, unless when shifting them from one part of the Market to another.

**4.** Inwards loaded or empty trucks, when drawn to the Points at the Market entrance, must be "roped," as required. Engines must not go past the Shed door leading to the Covered Shed containing the Meat Chamber.

**5.** It will be necessary for the engine to shunt in and out of the Market yard across Spencer-street. The Shunter in charge must, therefore, see that the public traffic is kept back, and protected both before, and while, crossing the road. The Road traffic must be blocked for as short a time as possible.

**6.** For trains approaching Melbourne Yard from the City Market Line the Points in their normal position lie for No. 39 Road. When the Proceed Signal is displayed at the Home Signal, the Engine-driver must approach the Gravitation Neck cautiously and with his train well under control.

**7.** Every irregularity must be at once reported to the Superintendent of Melbourne Yards.

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**CITY MARKET, ETC.**

**1.** No. 39 is the only Running Line between the Gravitation Yard and the City Market for both Up and Down journeys. Before any shunting operation takes place from this Line to No. 40 Road, the Guard or Shunter, as the case may be, as well as the Enginemen, must satisfy themselves that the operation can be safely conducted, and that no engine or any vehicle is approaching in either direction of No. 40 Road.

**2.** Between the Gravitation Yard and the City Market, the speed on the Running Line between sunset and sunrise, or in foggy weather, must not exceed a rate of 5 miles per hour, and during daylight 10 miles per hour.

**3.** The Leading Shunter in charge of the Gravitation Yard must see, after an engine has left either for the City Market or the Stevedoring Shed, that no other engine or vehicle is allowed to enter on the Running Line until the preceding engine has returned.

**4.** If, when the Leading Shunter is relieved, there be an engine on the Running Line leading to the Market, to the Victoria Freezing Works, or to the Docks, he must see that written acknowledgment from the person who relieves him is entered in the book provided in the Gravitation Cabin to the effect that the Relief man has been advised of the Line or Lines so occupied.



SPECIAL INSTRUCTIONS.

**MELBOURNE YARD—COMMUNICATION BETWEEN GRAVITATION YARD AND PERISHABLE SHED.**

1. (a) From 11 p.m. to 2 p.m. any vehicle coming to rest between the curve opposite the end of the Potato Platform and the Shed entrance, on the Perishable Platform Road, will be considered as placed by the Yard Staff. The Shunter attending to the horse shunting must subsequently place the trucks in the Shed as required. In the event, however, of an engine being required to place the trucks, the Shed Foreman must give the Assistant Yard Foreman at least twenty minutes' notice.

(b) From 2 p.m. till 11 p.m. daily, horses are not employed, and the Yard Staff must arrange for all trucks to be placed inside the Shed.

(c) When vehicles are horse-shunted out of the Shed, it must be done on No. 22 or 24 Road, leaving No. 23 Road clear for incoming trucks.

(d) Whenever a Red Signal is exhibited at the Shed entrance the Shunter in charge of the trucks approaching on the road to which such Signal applies must see that they are stopped clear.

**MOVEMENTS OF TRAIN ENGINES IN THE MELBOURNE GOODS YARD.**

1. A train engine proceeding from Dudley-street to the East Yard, via the Shipping Sidings, must, after passing Post No. 93, have its speed reduced to a rate not exceeding 5 miles per hour before it enters the Shipping Sidings. If the Road be clear the engine may continue to proceed at the same rate of speed, but it must be brought to a stand clear of the Junction of the Shipping Sidings and the South end of the East Yard, and wait there until a Shunter gives directions as to the train to which it is to be attached.

2. A train engine proceeding from Dudley-street to the East or Centre Yard via the East Yard Arrival Road must be brought to a stand clear of the Junction between the East Yard Loop (which is a connection from the Viaduct Goods Line) and No. 1 East Yard Arrival Road, and wait there until it can be accompanied by a Shunter, who will be responsible for seeing that it is shunted on to the proper road.

3. A train engine which enters the East Yard via the Loop from the Viaduct Goods Line must not foul the East Yard Arrival Road until it can be accompanied by a Shunter, who will be responsible for seeing that it is shunted on to its proper road.

4. A train engine proceeding from Dudley-street towards the West Bank or the Lower Level Arrival Road must be brought to a stand clear of all the Points which lead across from the Lower Level Departure to No. 1 Road, and there wait until it can be accompanied by a Shunter, who will be responsible for seeing that it is shunted on to its proper road.

5. A train engine proceeding from Dudley-street towards the Transfer Roads, A, B or C, or the Market Road, must not pass Post No. 75 until it can be accompanied by a Shunter. It may then continue its journey as far as Post No. 64, where it must wait until the Fixed Signal is exhibited for it to proceed.

## METROPOLITAN DISTRICT.

**PASSENGER CARS STORED UNDER COVER.**

Passenger Cars stored under cover in the Car Sheds at Spencer-street must always be coupled together, so that in the event of fire breaking out they may be readily drawn out of the building.

**LIGHT ENGINES RETURNING TO NORTH MELBOURNE DEPOT.**

When the Goods Lines in the Yard are blocked, Light Engines returning to North Melbourne Depot by way of North Melbourne Junction should, in order to avoid delay, be worked up on the Passenger Lines to Franklin-street Junction or No. 1 Box.

**SPENCER-STREET PASSENGER YARD.**

**1. (a) South End Box, Centre Yard.**—When the Home Signal has been exhibited to permit a train to run to the Main Arrival, No. 2 Platform, as far as Post No. 17, no obstruction of the Line between No. 1 Departure Platform and the Centre Yard Roads must be allowed until the incoming train has stopped at No. 2 Platform, clear of the Crossover. Similarly no train must be allowed to depart from or arrive at the bottom end of No. 1 Road until any train that may be approaching on No. 2 Road has been brought to a stand at the Home Signal, Post No. 18.

(b) A wooden Disc, painted white, is fixed on one of the Verandah Posts of No. 5 Platform at the South end of No. 1 Road, West Yard. This Disc indicates the point where the leading end of the vehicle next to the engine should be brought to a stand.

**2. WEST YARD.**—Interlocked Catch Points are provided at the bottom end of No. 2 Road, West Yard. Drivers must not pass over the Catch Points unless they receive a Hand Signal from the Signalman to do so, and in addition must see that Points are in the proper position for the movement intended. When an engine is required to proceed from the bottom end of No. 1 Road West, along same road or via the Cross-over, to No. 2 Road West, the Enginedriver must first see that his engine is over the points and clear of the Cross-over. He must then in order to let the Signalman know of the intended movement, give one long ring on the Bell Key provided for the purpose, to South End Box. When the Points are properly set for the movement, as will be shown by the Point Indicator, the engine may proceed towards ground Disc No. 9 on No. 2 Road, or Home Signal on Post No. 21 on No. 1 Road (West Yard) without any further signal from the Signalman.

During shunting operations, the Shunter must advise the Signalman the road required.

Trains are to be routed by bells between No. 1 and South End Boxes and Shunters must inform the Signalman in respect of movements and roads required.

## SPECIAL INSTRUCTIONS.

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**3. HORSE BOX TRAFFIC.**—Between the hours of 7 p.m. and 12 midnight, the Horse Box traffic between Spencer-street and Mordialloc Line is operated by a double-ended Motor Coach, and in order to expedite despatch at Spencer-street, authority is granted for the Boxes to be pushed from Spencer-street Passenger Yard, via the East Line "E.M.," Centre Line "M.," or the West Line "W.M." Departure Roads to the East Line Departure at Franklin-street Junction; the maximum number of Horse Boxes must not exceed four (4). Should more than four Horse Boxes be offering a steam locomotive must be engaged and the movement will then be performed via the Goods Yard.

When performing the set-back movement from Spencer-street Passenger Yard to Franklin-street, the Signalman at Franklin-street must not display a Proceed Indication on the respective Home Signals leading from the East Line "E.M.," the Centre Line "M.," or the West Line "W.M." to the East Line Departure unless the Line is clear as far as Three-position Automatic "R" 95.

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### NORTH MELBOURNE JUNCTION.

**1.** In the event of the West Passenger Lines being unavoidably blocked by Goods traffic, the Signalman at North Melbourne Junction must arrange for the Up and Down Passenger traffic being worked through North Melbourne on the Centre Lines; the Station-master, North Melbourne, must be promptly advised of the circumstances.

The Signalman must advise the Superintendent of Melbourne Yards without delay when there is any risk of the Passenger Lines being blocked by Goods trains.

**2. North Melbourne and Franklin Street.**—When from any reason a Down train is diverted from its usual road, the Signalman at Franklin-street must, in addition to informing the Signalman, North Melbourne Junction, give advice to the Platform Staff at North Melbourne by means of the telephone in ample time to enable the Staff at North Melbourne to arrange according to requirements; this course will not be necessary when printed notice has been given of any temporary or permanent alteration to the route of a train.

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### WORKING OF ARDEN-STREET SIDINGS.

#### Instructions for the Signalmen at North Melbourne Junction and Macaulay.

**1.** When an Up Goods train is approaching Macaulay, the Signalman there must, if North Melbourne Junction cannot accept it on the Main Line, turn it into Arden-street Siding.

**2.** The speed of the train must be reduced to a rate not exceeding 5 miles per hour before the Signalman at Macaulay exhibits the Fixed Signal for the train to enter the Arden-street Goods Road. The Driver

## METROPOLITAN DISTRICT.

must bring his train to a stand clear of the Arden-street Gates, and, on receiving an "All Right" Hand Signal from the Gatekeeper, he may proceed as far as the Home Signal, North Melbourne Junction, at a rate of speed not exceeding 5 miles per hour. Should any delay occur at the Signal, Regulation 75 must be complied with.

**3.** (a) Between Macaulay Signal-box and the Arden-street Gates the two Running Lines are to be treated as Up and Down Lines. Catch Points for outward traffic are provided near Post No. 13A; and when leaving from the Down end, the Driver and Guard must be careful to see that their train is on the proper Departure Goods Road (the left-hand Road), when passing Arden-street Gates.

(b) Between Arden-street Gates and the exit at North Melbourne end, the Points lie normally for the **Through Road, which is a Single Line** for Up and Down traffic. Under no circumstances are vehicles to be left standing on the Single Line.

During foggy weather, or between sunset and sunrise, should a train engine or shunting engine be working on the Single Line, the vehicle nearest Macaulay must be provided with a Red Tail Light.

**4.** Whenever the Signaller at Macaulay requires to turn a train or engine into Arden-street whilst another train or engine is already there, he must stop the second train or engine and verbally instruct the Driver as to the State of the Line ahead, a Green Flag by day and a Green Light by night held steadily in the hand being at the same time shown to the Driver and Guard.

**5.** A train or engine can be turned direct into Arden-street Sidings from the North-East Goods Departure Line at the North Melbourne end of the Yard, but the Signaller at North Melbourne Junction must not do so unless he first obtains permission from the Signaller at Macaulay, and the Signaller at Macaulay must not give such permission if there is already a train in the Sidings, or one is approaching which has to enter the Sidings first. The Signallers at North Melbourne Junction and Macaulay must, subject to the foregoing, promptly notify each other when a train or engine requires to enter or leave Arden-street.

**6.** The Officer in charge at Arden-street must advise the Superintendent of Melbourne Yards not later than 5 p.m. daily of the number of empty and loaded trucks available for clearance, the truck numbers, and the destination of the loaded trucks must also be specified.

**7.** Whenever a Van is left at Arden-street by the Shunting engine, the officer in charge there must arrange for the Shunter to place it on a suitable Siding clear of the Running Road, so that empty Goods trucks may be horse-shunted against it. He must also arrange for trucks loaded out to be kept together so as to enable a straight "pick-up" to be made.

**8.** The time of arrival and departure of Goods trains entering the Arden-street Sidings, and also particulars of any telephone messages that may pass between the Signallers at North Melbourne Junction and Macaulay in respect of any such train must be shown in the Train Register Books, together with an explanatory note in the "Remarks column," giving the name of the train and the reason (if any) for the delay.

## SPECIAL INSTRUCTIONS.

**9. Macaulay Sidings.**—(a) Prior to a train or engine that is required to work at the Sidings at Macaulay, proceeding beyond the Gates at Arden-street, the Shunter-in-charge must obtain the permission of the Signalman, Macaulay, and the latter, before giving permission, must make sure that he can do so without causing delay to other trains; the telephone in the Gate Cabin at Arden-street may be used for this purpose.

(b) The speed of trains or engines between Macaulay and Arden-street Sidings must not exceed five (5) miles per hour.

**10. Melbourne City Council Sidings, Arden-street.**—These Sidings, which form two dead-end roads, are connected with a road leading off "D" Sidings, Arden-street. **Engines are not permitted to use the Left-hand Siding,** the Points leading to which are situated inside the Council's Gate. A Notice Board, lettered, **"Engines must not use this track,"** is erected at the entrance to the Left-hand Siding.

A Notice Board which marks the point beyond which engines must not go on the Right-hand Siding is erected ahead of the facing hand Points leading to this siding. The lettering on the board—which applies to the Right-hand Siding only—is as follows:—**"Engines must not pass this Post."**

Catch points are provided at the exit from each of the two Sidings, inside of which the loaded trucks must be placed and the empty trucks made available at the same point.

Trucks must not be loose shunted into these Sidings; Guards and Shunters must arrange to have attached to the engine a sufficient number of other vehicles to enable the shunting to be safely carried out.

### TRAINS OR LIGHT ENGINES FROM ESSENDON, NEWMARKET, SOUTH KENSINGTON, OR KENSINGTON, TO SPENCER-STREET GOODS YARD.

**1.** During the running of Suburban traffic the Signalman at Essendon must telephone the departure of all Up Goods trains to Newmarket Junction, and the Signalman there must at once advise the Signalman, Kensington.

**2.** Before the Signalman at South Kensington Junction or Kensington allows a Goods Train or Light Engine to go towards the Up Passenger Line, he must ascertain from the Signalman at North Melbourne Junction whether the Goods train or Light Engine can be dealt with without causing delay to the passenger traffic, and before the Signalman at Newmarket Junction allows a Goods train or Light Engine from the Racecourse Line on to the Main Line, he must make similar inquiries from the Signalman at Kensington.

If the Signalman at North Melbourne Junction, or Kensington, as the case may be, is not prepared to deal with Goods train or Light Engine, it must not be allowed to proceed, and a note of the circumstances must be made in the Train Register Books. Should the train or Light Engine be delayed more than five minutes, the Signalman at the Box where it is waiting must again call the attention of the Signalman

## METROPOLITAN DISTRICT.

North Melbourne Junction, or Kensington, as the case may be, and repeat the message, and, if still detained, the message must be repeated at short intervals until permission is obtained for the train or engine to proceed.

### ENGINES FROM DUDLEY-STREET TO SPENCER-STREET AND FLINDERS-STREET.

1. Drivers of Light Engines leaving North Melbourne Locomotive Shed must notify the Signalman at Dudley-street Box of their destination, and the trains they are booked for, and the Signalman, Dudley-street, must advise the Signalman, No. 1 Box, if the engines are for Spencer-street Yard, and the Signalman, Viaduct Junction, if they are for Flinders-street Yard.

2. To avoid mistakes, each Driver must slow down at the Viaduct Junction Box, and inform the Signalman of the name of the train he is booked for. The Signalman must then notify Flinders-street "A" Box the order in which the engines are approaching.

3. Engines coupled together must not be uncoupled until they pass "A" Box, Flinders-street, so that the Signalman may be in a position to know that all the engines have been disposed of.

4. The maximum number of engines coupled together, allowed to run over the Flinders-street Viaduct is 4 tender engines or 6 tank engines.

### FLINDERS-STREET—TRAIN MOVEMENTS TO PLATFORM ROADS ALREADY OCCUPIED.

1. When any Platform Road, No. 3, 4, 5, 6, 8, 9, 10 or 11, or the East or West end of No. 14, 15, or 16 Road, is occupied, a train or engine movement from the Main Arrival Road outside the outer Home Signal to the occupied Platform Road is not permitted.

2. (a) If the West end of No. 1 or No. 13 Platform Road be occupied, a train or engine movement from a Main Arrival Road, outside the outer Home Signal, to the East end may be made if the Platform Road at the East end be clear. Similarly, if the East end be occupied a movement from a Main Arrival Road, outside the outer Home Signal, to the West end may be made if the Platform Road at the West end be clear.

(b) If the Platform Road at either the East or the West end be occupied, a train or engine movement from a Main Arrival Road, outside the outer Home Signal, to the occupied end is prohibited.

3. Ordinary Yard movements from Sidings, or Set Back movements from Departure Roads, on to an occupied Platform Road by means of a Low Speed Signal are permitted.

4. In foggy weather the movements to an occupied Platform Road are restricted to either the train engine or Motor Car going in to take the train out, or one going in to shunt a vehicle or vehicles, but in any

## SPECIAL INSTRUCTIONS.

such case the engine or Motor Car must be brought almost to a stand at the Home Signal before the Low Speed Signal is exhibited. See instruction in regard to Calling-on and Low Speed Signals on pages 130-132.

5. Before an outer Home Signal is placed to the Proceed position for a train to run to any of the non-platform roads (No. 2, 7, or 12), the Road to which it is intended that the train shall run must be clear.

### FLINDERS STREET—SHUNTING EMPTY TRAINS.

*Note.—Special Instructions will be issued by the Superintendent of Melbourne Yards and the Workshops Manager, Jolimont jointly, in regard to Shunting and stabling of Electric trains; employes concerned must make themselves conversant with such instructions.*

1. Before a train is **pushed** on to a Siding at the West end of the Station, the Shunter in charge of the operations must see that the Points are in the proper position for the Road on which the train is to proceed; the speed of the train must not exceed a rate of **5** miles per hour.

2. Whenever possible a train being docked must be drawn to the platform, and in no case must any Passenger train be pushed from any Siding to a Platform without the permission of the Yard Foreman; and before giving such permission, the Yard Foreman must arrange for the provisions of the General Instructions for Shunting Empty trains, pages 442-444 and clause 4 hereof, to be carried out.

3. (a) When an empty train is being **drawn** from a Siding to a Platform Road to be put into running, a Shunter must, whenever it is reasonably practicable, accompany such train, but if, through having to attend to another train, he is unable to do so, he must personally inform the Driver what train it is, the number of the Platform Road to which it is to be taken, and that he (the Shunter) cannot accompany the train to the Platform.

(b) The Yard Foreman must keep in close touch with the shunting operations and see that a Shunter accompanies the train to the platform, in cases of necessity.

4. (a) When a train is being **pushed** from any of the Running Lines (Nos. 1 to 16 Roads inclusive) to a Siding or from a Siding to any of the Running Lines, the Shunter who rides on the leading vehicle must, except in any case of emergency, continue to ride on that vehicle until the train comes to rest at its destination in the Siding or at the Platform.

(b) If, when a train is being pushed, it should be necessary to hold in the reversed position any Hand Points over which the train shall pass, a second Shunter must be employed to attend to such Points; but unless the Shunter riding on the leading vehicle sees that the man is at the Points, he must stop the train. Enginemmen and Motormen must

## METROPOLITAN DISTRICT.

keep a sharp lookout and be prepared to stop if necessary; in the event of the train being stopped by the Shunter, the Driver must not start again until he receives a Hand Signal to do so from the Shunter.

5. (a) After sunset and during foggy weather the Shunters when taking or despatching a train from the Yard must light the Red tail lamp on the vehicle left standing open on the Road from which the train is being withdrawn, and when stabling a train it will be the duty of the Shunter, or (if there be no Shunter) the Guard, to see that the train stabled is protected by a Red light on the outer vehicle.

(b) DRIVERS must, when stabling a train, extinguish the Tail light on the train ahead before leaving the train which is being stabled.

(c) THE SHUNTING STAFF will at all times be held responsible for the protection of stationary trains in the Yard which have not been provided for in accordance with the foregoing instructions.

(d) In all cases where it is necessary for a train to draw into a Siding from the Station to attach units, the Shunter must be in attendance and protect the shunting movement which is being made.

6. See pages 442-444 for General Instructions relating to the shunting of empty trains, which also applies at Flinders-street, unless otherwise expressly provided for in clauses 1 to 4 above.

### FLINDERS-STREET YARD.

Telephone Cabins, fitted with telephones and bells for the use of the Yard Staff, are situated at the undermentioned Sidings:—

Location.	Connected with—
Collingwood and Country Sidings	Yard Foreman's Office and "D" Signal-box.
Kew and Camberwell Sidings	Yard Foreman's Office, "C" Signal-box and Loco. Chargeman's Office.
Coburg and Williamstown Sidings	Yard Foreman's Office, "C" Signal-box and Loco. Chargeman's Office.
Oakleigh and Mordialloc Sidings	Yard Foreman's Office, "A" Signal-box, "C" Signal Box, Loco. Chargeman's Office, and Platforms Nos. 6 and 7.
Brighton and Essendon Sidings	Yard Foreman's Office, "B" Signal-box and Loco. Chargeman's Office.
Goods Yard Sidings	Yard Foreman's Office, "B" Signal-box and Auxiliary frame.

A loud-sounding gong is fitted to the Cabin in "Oakleigh Sidings." This gong is connected to "C" Box, and must be operated by the Signaller when necessary to attract the attention of Shunters working on the Car Sidings. Instructions for the working of the telephones are posted in each Cabin.



## SPECIAL INSTRUCTIONS.

**FLINDERS STREET—GRADES OF LINES OF WAY.**

The Grades of Lines of Way at Flinders-street Station are as follows:—

Roads.	From Viaduct to Elizabeth-street Subway.	From Elizabeth-street Subway to West end of Swanston-Street Bridge.	Under Swanston-st. Bridge.
1-2-3	1 in 128, falling	1 in 180, falling	Level
4-5	1 in 166 „	1 in 210 „	„
6-7	1 in 200 „	1 in 280 „	„
9-10	1 in 150 „	1 in 220 „	„

**From Bridge over Yarra.**

Line.	To end of Platforms.	Along Platform.
Port Melbourne ...	1 in 215, falling	1 in 220, falling
St. Kilda ...	1 in 160 „	1 in 240 „

**East of Swanston Street Bridge.**

Line.	For 400 Yards Eastward.	From 400 Yards Eastward to Jolimont Footbridge.
Country ...	1 in 100 } rising 1 in 120 }	1 in 240, falling
Camberwell ...	1 in 150 „	1 in 370 „
Oakleigh ...	1 in 193 „	1 in 400 „
Brighton ...	1 in 240 „	1 in 600 „
Through Goods ...	1 in 280 „	1 in 700 „

**FLINDERS-STREET. — SPECIAL INSTRUCTIONS RESPECTING DETACHED VEHICLES AND UNCOUPLING ENGINES OR MOTOR CARS FROM TRAINS ON RUNNING ROADS.**

1. At Flinders-street Station the following instructions regulating the coupling and uncoupling of engines or Motor Cars must be carefully observed by all concerned:—

**2. On No. 1 Road, West of Swanston-street Bridge:—**

(a) The engine or Motor Car must not be uncoupled from any train until instructions to do so have been received from

## METROPOLITAN DISTRICT.

the Station-master, Head Porter, or the Shunter, who must not give such instructions until he has seen that all Hand Brakes on the train, as well as the Air Brakes, are properly applied.

- (b) The Guard of any train arriving on this road must apply the Air Brake as well as his Hand Brakes to prevent the train moving, and must not leave his train until he has received permission to do so from the Station-master or Head Porter, who will then become responsible for the security of the train.
- (c) When there is more than one Brake-van on the train the Station-master, Head Porter, or Shunter must see that the Hand Brake in each van is applied before allowing the engine or Motor Car to be uncoupled.
- (d) No vehicle is to be allowed to stand on this portion of No. 1 Road except when attached to an Engine or Brake-van, and the Shunter in charge of the work will be held responsible for the proper security of each vehicle. Before uncoupling the engine or Motor Car the Shunter must apply the Air as well as the Hand Brake to prevent the vehicle or vehicles from moving.

### **3. On No. 1 Road, East of Swanston-street Bridge, and on No. 2 Road:—**

- (a) No vehicle is to be allowed on this portion of No. 1 Road or on any portion of No. 2 Road, unless the vehicle or vehicles are attached to an engine or Motor Car, with a Driver in charge.
- (b) The engine or Motor Car must not be uncoupled from any train on these roads until instructions to do so have been received from the Yard Foreman or Shunter in charge of the train, who, before giving such instruction, must see that another engine or Motor Car, with a Driver in charge, is properly coupled to the opposite end of the train.

### **4. On Nos. 3 to 8 Roads a competent employe must be stationed to apply the Hand Brakes, and on these Roads the following instructions will apply:—**

- (a) No employe must uncouple the engine or Motor Car from any train or vehicle until instructed to do so by the Guard or by the employe appointed to apply the Hand Brake in the Van nearest the front of the train, and such employe must not give instructions for the engine or Motor Car to be uncoupled until he has properly applied the Hand Brake as well as the Air Brake, to prevent the cars from moving.
- (b) The Guard of any train on arriving in any of these Roads must in all cases apply his Hand Brake as well as the Air Brake.
- (c) When a train is pushed from the Yard or Siding into any of these Roads the Shunter will be responsible for applying the Hand Brake at each end of the train as well as the

## SPECIAL INSTRUCTIONS.

Air Brake before the engine or Motor Car is uncoupled. (See clause 1 of instructions under heading "Shunting Empty Trains" on page 389). When the train is hauled from the Yard or Siding, and it is not accompanied by a Shunter, the engine or Motor Car must not be uncoupled from the train without the permission of the employe appointed to attend to the Brakes, and such employe must apply the Hand Brake at both ends of the train as well as the Air Brake before allowing the engine or Motor Car to be uncoupled.

5. After the engine or Motor Car has been detached the responsible employe must take care to prevent the Brakes being released until an engine or Motor Car is again properly coupled to the train or vehicle. An employe must be appointed to release the Hand Brake on the front Van when the engine is coupled to an outgoing train.

6. The Station-master and the Head Porter will be responsible for seeing that the foregoing instructions are carefully observed.

In the case of an Electric Train the Motorman and Guard must fully apply the Hand Brakes at their respective ends of the train, as well as the Air Brake.

### FLINDERS STREET AND JOLIMONT JUNCTION.

1. (a) Up Goods trains on which there are no trucks for Jolimont Yard may be run through between Jolimont Junction and Flinders-street on the ordinary Passenger Lines, provided they can be worked through Flinders-street Station without causing delay to the Passenger traffic. Signalmen, Jolimont Junction and Flinders-street, to arrange. If, however, there be any doubt as to whether this can be done without causing delay to the Passenger traffic, such trains should be sent via the Special Line.

(b) Down Goods trains (except those for the Brighton Line) may run through Flinders-street Stations on any road that is available. Down Brighton Line Goods trains must run through on either the Down Brighton or the Down Special Line.

2. (a) When any truck or trucks on an Up Goods train require to be detached at Jolimont Yard, the Guard must arrange for such train to be stopped at Box Hill, in the case of Lilydale Line Goods trains; Camberwell, Hawthorn or Burnley, for the respective Branch Line Trains; and Caulfield, in the case of Eastern, South-Eastern, or Mordial loc Line Goods trains, in order that he may acquaint the Signalman ("B" Box at Caulfield) of the fact. The train must then be signalled through on the Electric Bells in accordance with the Special Code. (See pages 707-709.)

(b) The Signalman at Jolimont Junction must arrange for the train so signalled to run from there on the Up Special Line.

**NOTE.**—See Special instruction, page 877, regarding UP Goods trains stopping at Caulfield to permit of the Guard testing the Air Brake.

**JOLIMONT WORKSHOPS ROADS.****(Special Precautions in Shunting Operations.)**

1. (a) For the protection of doors at the entrance of and workmen employed in the Jolimont Workshops, Scotch Blocks are fitted on all Roads leading towards the Workshops at the East or West side of the Workshops. The keys of the Scotch Blocks are in the custody of the Workshops Manager.

(b) No movement of any vehicle or engine is allowed to or from the Workshops, except by permission of the Yard Foreman, Flinders-street, who, before giving such permission, must inform the Workshops Manager of the particulars of the work required to be done, and the Workshops Manager will then arrange to unlock such of the Scotch Blocks as will be required to permit of the work being performed, and for the Scotch Blocks to be again secured in the normal position, across the rails, when the shunting is completed.

2. **Special Warning to Employes Accompanying a Train to or from the Jolimont Workshops.**—(a) The clearance between the side of a car and the walls, columns or posts at the sides of each doorway at the East or West entrance to the Jolimont Workshops is only 15 inches, and (except in the case of Enginemmen, Motormen and others specially authorised) employes are forbidden to ride either on the inside or on the outside of any engine or car entering or leaving the Workshops. Employes specially authorised to ride on the train when passing through the doorway must in every case ride inside the Driver's or the Guard's compartment and must keep clear inside until they have passed through the doorway: under no circumstances must any employe ride on the outside of a car or engine when passing through the entrance to, or exit from, the Workshops.

(b) When it is necessary to take any engine, car or cars to or from the Workshops, the Driver must stop before the engine or leading car reaches the entrance or exit, and then give four long whistles to call the Guard or Shunter in charge; and the Driver must not again proceed until the Guard or Shunter in charge has come to the front of the train and has verbally instructed him to do so. The Guard or Shunter must see that no unauthorised person is allowed to ride with the train, and, before giving the Driver permission to proceed, must verbally warn each employe on the train of the danger and of the precautions laid down in sub-clause (a) hereof.

(c) Before entering or leaving the Workshops, the Driver and Guard must see that the roller screen door is raised above the top of the doorway, to provide the proper clearance overhead.

3. **Precautions when Within the Workshops.**—(a) Immediately before giving an intimation to the Driver to proceed into, or out from, the Workshops, the Guard or Shunter must himself pass through the doorway, and walk ahead of the engine or leading vehicle to give warning to employes on or near the Road on which the train is proceeding; the Driver must also sound his whistle before starting and whenever necessary to warn men in or about the Workshops. No person must attempt to pass through any doorway when the passage is fouled by an engine or car.

## SPECIAL INSTRUCTIONS.

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(b) When a train is to be taken from any Road in the Workshops no person other than the Guard or (in the absence of a Guard) Shunter in charge is allowed to give a Signal or other intimation for the Driver to move the train, and, before giving such intimation, the Guard or Shunter in charge must examine the "Car Movements Record Book" and see that permission for the movement has been entered in the Book and signed by the authorised employe; the Guard or Shunter must enter his initials, and the time at which the entries are noted, in the respective columns of the Book.

(c) Officers and employes, including those connected with the Workshops, are responsible for seeing that the foregoing instructions are strictly observed; failure to report any infringement will be regarded as contributory negligence.

(d) Enginemen, Motormen, Guards, Shunters and other employes are warned that the floor level between the rails of all Lines and the spaces between some Lines in the Workshops are about 2 feet 6 inches below the level of the rails, and usually occupied by moveable platforms, ladders and other appliances; employes when alighting from or boarding an engine or vehicle must exercise due care to avoid these obstructions.

4. (a) A copy of these instructions must be always exhibited in the Foremen's Offices and in the rooms usually occupied by Motormen, Guards and Shunters; copies must also be exhibited in conspicuous places for the information of employes or others at the Workshops.

(b) The signature of each Motorman, Guard and Shunter must be obtained by the Yard Foreman in a book containing an instruction directing attention to the pages (of this book) on which these instructions are shown, and to the Notices exhibited in their respective rooms.

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### **FLINDERS-STREET — WORKING OF THE THROUGH SIDING LOOP, BETWEEN "D" BOX AND JOLIMONT JUNCTION BOX.**

1. The speed between "D" box and "E" Box via the Through Siding Loop must not exceed a rate of 5 miles per hour.

2. Drivers must not move their engines or trains over the Car Siding Loop in the direction of Jolimont Junction Box until they have been informed by the Shunter in charge of that part of the Yard that they may do so. The Shunter must not, however, authorise the movement until he has obtained permission from the Signalman, "D" Box.

3. Before granting permission, the Signalman at "D" Box must have a clear understanding regarding the matter with the Signalman, Jolimont Junction Box, and if it be decided to allow the movement to take place, the Signalman, Jolimont Junction Box, must not permit a contrary movement on to the Siding from his end, until the movement already authorised has been completed, or he has been advised that it is cancelled.

## Northern Section.

### INSTRUCTIONS FOR CONTROLLING UP GOODS TRAINS BETWEEN WOODEND AND MELBOURNE.

**1.** All Goods trains running from Woodend to Melbourne must have a certain number of Truck Hand Brakes in use on the train between the top of Macedon Bank and Sunbury.

The speed of the train must not exceed 40 m.p.h. at any part of the journey, and when this speed is attained, it must not be maintained for prolonged periods.

The following method of controlling such Goods trains must be strictly carried out by all concerned.

**2.** (a) Every Up Goods train must be stopped about 200 yards on the Up side of the top of the Macedon Bank, and must be held stationary by an application of the Air Brake with about 10 lbs. reduction in the Train Line pressure and the Brake Valve left in the Lap position. The Fireman is to remain on the engine, and the Driver must release the Brakes on the leading trucks by operating the Hand Release Valves. When the Air Brake is fully released on each truck, the Driver must apply the Hand Brake firmly but not heavily.

(b) At least one standard "T" Truck Hand Brake must be applied for every 100 tons gross load; 50 tons and over to be taken as equal to 100 tons.

(c) "QR" or other bogie trucks to count as two Brakes.

(d) Hand Brakes must not, under normal conditions, be applied on wooden trucks containing loading such as Hay, Straw or Chaff.

**3.** (a) When Fixed and other Signals permit, the general principle of controlling the train will be as set out in the following table and at the locations shown the speeds specified must, as far as practicable, be adhered to, and the position of the Engine, Tender and Automatic Brakes at each location will be as shown hereunder:—

**NOTE.**—Under normal conditions the Engine and Tender Brakes must not be applied, except as shown at the specified locations, but the Automatic Brake may be used as required between these localities to control the train.

Locality.	Recom'nded speeds in m.p.h.	Operation of Brakes.
Bridge between Stop Board and Macedon Station	15	Engine, Tender and Automatic released.
Approaching Macedon Station	35-40	Automatic released. Tender applied, also Engine if necessary.
Leaving Macedon Station	30-35	Engine and Automatic released. Tender applied if necessary.
At the bottom of the grade approaching Gisborne	35-40	Engine, Tender and Automatic released.

## SPECIAL INSTRUCTIONS.

INSTRUCTIONS FOR CONTROLLING UP GOODS TRAINS BETWEEN WOODEND  
AND MELBOURNE—*continued.*

Locality.	Recom'nded speeds in m.p.h.	Operation of Brakes.
Leaving Gisborne	20 (Steam)	Engine, Tender and Automatic released.
Approaching second Bridge (Gisborne-Riddell Section)	15-20	Automatic released. Engine and Tender applied.
Leaving Riddell Station	35-40	Engine, Tender and Automatic released.
Leaving Clarkefield	30	Engine, Tender and Automatic released.
Entering Sunbury Cutting	15-20	Engine and Automatic released. Tender applied.
In Sunbury Cutting	35-40	Automatic applied as required.
Approaching Sunbury	30-40	Engine, Tender and Automatic released.

(b) All Up Goods trains must be stopped at Sunbury and the truck Hand Brakes are to be lifted by the Fireman.

(c) After leaving Sunbury, the Tender Brake only to be used for bunching the slack in the train, and the Automatic Brake used for controlling the speed of the train, which may be 30 to 40 m.p.h. from Sunbury to Sydenham, and must not exceed 30 m.p.h. from Sydenham to Sunshine.

**4.** In every case where an Up Goods trains is stopped at a Station between Woodend and Sunbury, the truck Hand Brakes must be used as shown hereunder for each station:—

**MACEDON.**—The truck Hand Brakes are to remain applied; there will be no difficulty in re-starting at this Station.

**GISBORNE.**—The truck Hand Brakes must be lifted by the Fireman. After leaving this Station the train must be stopped at the top of the first falling gradient and the truck Hand Brakes again applied as directed in Instruction 1, clause (a).

**RIDDELL OR CLARKEFIELD.**—The truck Hand Brakes are to be lifted by the Fireman, and need not be again applied. After leaving either of these Stations the Tender Brake must be used for bunching the slack in the train and the Automatic Brake used for keeping the speed within the limits prescribed in these Instructions.

### **DIGGER'S REST.**

At Digger's Rest the Points at the Up end of the Siding are connected by rodding to Trailing Points on the Up Main Line, and worked from a Ground Frame, which is secured by an Annett Lock. The Key to the Annett Lock is secured normally in a duplicated Lock on the interlocking frame at the Signal-box, and when the Key is removed from the interlocking frame all Up and Down Signals affected are secured in the Stop position.

## NORTHERN SECTION.

**McKAY'S PRIVATE SIDING.**

1. The above Siding, situate at 27½ miles between Sunbury and Clarkefield, is connected to the Down Main Line, and the Points in the Main Line are rodded to a Catch blade in the Siding and worked by a lever. A Down Home Signal, fixed 500 yards from the Points, is also provided.

An interlocking frame with two levers is situate near the Points. The lever painted Black works the Points, and the lever painted Red the Home Signal. The lever which works the Down Home Signal is normally secured in the Proceed position by an Annett Lock, the key of which, when not in use, is in charge of the Station-master, Sunbury, who is responsible for its safe custody.

2. (a) The Guard of a train which requires to work at the Siding must obtain the Annett Key from the Station-master, Sunbury, who must instruct the Guard in its use, and telephone to Clarkefield that the Guard (naming the train) has received the Key.

(b) When the train arrives at the Siding, the Guard must immediately unlock the Signal lever at the interlocking frame and place the Signal to the Stop position; the Point lever will then be free to work as required. When the train is quite ready to proceed on its journey, the Guard must place the Point lever in the normal position, place the Home Signal to Proceed, and lock it in that position by means of the Annett Key; he must be careful to see that the Home Signal goes to Stop or to Proceed according to the position of the lever.

(c) The Guard must retain the Annett Key until his arrival at Clarkefield, when he must deliver it to the Signalman, who must arrange for it to be waybilled to Sunbury by the first available stopping train; the Signalman at Clarkefield will be responsible for the safe custody of the Key while it is at his Station.

3. Trains must not work at this Siding during Darkness or Foggy weather, nor when the Block Instruments are out of order.

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**CLARKEFIELD.**

When a Down Goods train has trucks to put off at Clarkefield, the Guard of such train must inform the Station-master, Sunbury, stating, at the same time, the number of trucks, and their position on the train. The Station-master, Sunbury, must then promptly advise Clarkefield. The train must stop at the Down Home Signal at Clarkefield, for the trucks to be detached, but before the engine or any portion of the train is uncoupled, the Guard must satisfy himself that the Van brake has been put on securely, and that a sufficient number of vehicle brakes have been applied to prevent any possibility of the train or vehicles moving away. Where the Air Brake is in operation it must also be applied to that portion of the train left standing on the Running Line. The uncoupling must not be done until the Guard has given the necessary signal.



## SPECIAL INSTRUCTIONS.

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### KYNETON.

#### (Regulation 198).

1. In order to obtain the maximum facilities of the Terminal conditions at Kyneton, authority is hereby granted for the Guards of any Up Goods trains to communicate with the Signaller, by means of the telephone in the Auxiliary Signal-box at the Down end of Station, for the purpose of informing the Signaller that the whole of his train, with the White Disc or Red Tail Light attached, has arrived complete under the protection of the Home Signal. In the case of an Up Passenger train, it will be the duty of the Officer-in-Charge to obtain such information from the Guard and for so informing the Signaller.

2. The employe responsible in each case for conveying the information to the Signaller must clearly state the name of the train referred to.

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### WOODEND—MACEDON—SUNSHINE.

On Saturday night the Station-master or person in charge at Woodend must telephone the time of departure of the last Up Goods train to Macedon. The Station-master or person in charge, Macedon, must wire this information to the Signaller at Sunshine, and the latter must arrange for word to be passed along by telephone to the Boxes in advance.

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### MALMSBURY.

#### (Up Passenger Trains Awaiting Line Clear Not Permitted to Draw Towards Starting Signal.)

1. Up Passenger or Mixed Trains must not be permitted to proceed towards the Up Starting Signal at Malmsbury unless such train has been accepted by the Signaller in advance. Non-stopping trains awaiting "Line Clear" must be kept at the Up Home Signal and stopping trains at the platform.

2. The Station-master, Castlemaine, must arrange for advice to be sent to Malmsbury on each occasion that any Passenger train, booked to "Set down only" at Malmsbury, has passengers to alight at that Station.

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### CHEWTON.

1. When an Up Goods train requires to work at Chewton, for the purpose of putting off or taking on vehicles, the whole of the train must always be placed in the Siding before the engine is uncoupled. Vehicles must not be left on the Main Line uncoupled from the engine.

2. No engine or vehicle must be allowed to foul the Main Line without the permission of the Station-master, who must, in all cases, supervise the work.

3. Only Up trains with single engine loads are to work at this place; and except in a case of emergency, a double headed train, or a train hauled by a "C" class engine must not be side-tracked at Chewton.

## NORTHERN SECTION.

**BENDIGO.**

**1. YARD WORKING.**—(a) When it is necessary to shunt vehicles from the Goods Yard to Nos. 1, 2, 3 or 4 Passenger Roads, the Signalman "B" Box must not exhibit the Fixed Signal for the movement until a Bell Signal or a verbal request has been received from the Shunter or Engine Crew intimating the Road required. In the event of such Road being already occupied, the Fixed Signal applicable to it must be kept at the "Stop" position until the speed of the train or engine has been slowed down to a rate not exceeding 5 miles per hour, and the Driver has been cautioned verbally and by a GREEN Hand Signal, as to the state of the Line ahead.

(b) The Signalman, "B" Box, must, before turning off the Disc Signal for a movement from the Passenger Yard towards "X," "Y" or "Z" Goods Roads, first receive permission from the Yard Foreman or Leading Shunter and obtain a Hand Signal from the Shunter in charge of the Hand Points; before giving such permission the Yard Foreman or Shunter in charge must see that the Line towards the Goods Yard is clear, and take steps to prevent any conflicting movement.

**2. DEPARTURE OF GOODS TRAINS.**—(a) Where Fixed Signals are not provided, no Goods train must depart from any Road in the Bendigo Yard until the Driver has received from the Yard Foreman or Shunter in charge a GREEN Hand Signal and verbal instructions that the line is clear. The Yard Foreman or Shunter in charge must take steps to protect the departing train from any conflicting movement. If there be any delay, the Fireman must be sent to ascertain the cause.

(b) All Up Goods trains, also engines for Loco. Roads, should depart from the Yard, via the Up Goods Departure Road, but when it becomes necessary for any train or engine to leave the Yard by any other Road, the permission of the Signalman, "A" Box, must first be obtained before such train or engine is turned into that Road.

**3. TRAINS OR ENGINES ENTERING YARD FROM "A" BOX END.**—(a) All trains or engines for the Yard must be turned into "A," "B" or "C" Arrival Roads unless the Signalman has been otherwise instructed by the Yard Foreman. In every instance when the Yard Foreman has authorised a train or engine to arrive in the Shunting Road or Goods Departure Road, the Yardsman authorising the movement will be held responsible for the protection of the movement until the train or engine has arrived, and the Road is again clear.

(b) Arrival Roads "A," "B," and "C" should, ordinarily, be used only for arrival trains or engines, but in the event of it being necessary for the Yard Staff to use one of these Roads for a movement from the Goods Yard, the permission of the Signalman at "A" Box must first be obtained and the Signalman must, before granting such permission, satisfy himself that he can do so with safety. The Signalman must not again turn a train or engine into the Road for which such permission is granted until he has ascertained that the movement is completed and the Road is again clear.

## SPECIAL INSTRUCTIONS.

Permission must be obtained for each separate movement made from the Yard to any arrival Road, and the Shunter-in-charge must give the Signalman full information as to what is required, and again inform him when the movement is completed and the Road is again clear. A note to the effect that such permission was granted and when the Road is again clear, together with the time, must be entered in the Train Register Book, and levers controlling signals leading on to the occupied Line must be secured at the "Stop" position by sleeves.

**4. REPAIR SHOP ROADS.**—A Scotch Block has been provided at the neck of the five Repair Shop Roads. This Block must be kept on and locked when not required to be open for the passage of engines or vehicles to or from the Repair Shop Roads. The key of the Scotch Block must be kept in a specified place in the Depot Foreman's Office, who will be responsible for its safe custody. The key must be personally obtained by the Shunter-in-charge of any operations that may be necessary, and he must immediately hand it back on completion of the work.

The Shunter-in-charge, before disturbing the position of any vehicle in the repair road, must ascertain where vehicles are to be placed, or removed from, and warn all workshop employees working in the roads the engine or vehicles are to enter.

Shunting movements to or from the Repair Shop Roads, Short Dead-end Road, and Loco. Roads must be protected by the Shunter in charge of the movement, and in the case of light engines not accompanied by a Shunter, by the Fireman.

**5. TELEPHONE COMMUNICATION BETWEEN ENGINE SHED, ENGINE ROAD, AND "A" AND "B" BOXES.**—Telephone communication is provided between the Departure Door of the engine shed and "A" and "B" Boxes. The telephone is enclosed in a small wooden box fixed on the wall close to engine shed door. A two-way switch is provided, marked "A" and "B," applying to "A" and "B" Signal-boxes respectively, and the switch must be placed in position on the square "A" or "B" according to the Signal-box with which communication is required, and one long ring given. The Driver of any engine, before leaving the shed, must first obtain permission from the Signalman at either "A" or "B" Signal-boxes, as may be necessary, and give him the number and class of engine, its destination, and the Driver's name. When the messages have been exchanged, the telephone must be placed on the hook and the door of the box securely fastened. The Signalman must, before granting permission, satisfy himself that he has not permitted any conflicting movement, and apply sleeves to all levers governing opposing movements. He must record in the Train Register Book the number of the engine and the time permission was asked for and given, also the time engine arrived at Fixed Signal.

When permission has been obtained for an engine to leave the shed, both the Driver and the Fireman must keep a sharp lookout for any Hand Signals which may be exhibited, and to stop short of any obstruction that may exist on the line.

A telephone is also provided and placed in a small wooden box on the outside of Signal Post No. 10 and connected with "B" Signal-box to afford Enginemmen and Shunters a ready means of communication with the Signalman "B" Box.

## NORTHERN SECTION.

To communicate with the Signalman, lift the telephone receiver off the hook and this will ring a bell in the Box. After the message has been delivered, the telephone receiver must be placed on the hook and the door closed and fastened.

**6. "C" BOX AND MUNDY STREET GATES ELECTRIC BELL CODE.**—The rings, as per the code shown below, must be given by the Signalman and acknowledged by the Gatekeeper repeating them. In respect of Down trains, the acknowledgment must be received before the Signalman places the Starting Signal on Post 26 to Proceed. In respect of Up trains, the Fixed Signals may be placed to Proceed upon receipt of acknowledgment.

In the event of any failure of the electric bell, the Signalman must see that the Gates are clear of the line before exhibiting the Fixed Signals for the train to approach.

Down trains	..	One Long Ring
Up trains	..	Two Long Rings

**7. North Bendigo.**—**CATTLE YARDS AND LOCO. SIDINGS.**—The Cattle Yards and Loco. Sidings at North Bendigo lead off the Heathcote Line and Siding "W," and the entrance and exit is governed by Fixed Signals. If an engine be in the Sidings at the time when a second engine requires to proceed there, the Signalman at Box "D" must inform the Driver of the second engine and the Shunter accompanying it that an engine is already in the Sidings, and instruct them to keep a good lookout. Movements crossing the Loco. or Cattle Sidings must be protected by the Shunter in charge, or, in the case of a Light Engine not accompanied by a Shunter, by the Fireman. The Driver must sound the engine whistle when rounding the curve approaching the Cattle Yards.

The maximum speed over the Sidings must not exceed a rate of 10 miles per hour during the hours of daylight, and 5 miles per hour during the hours of darkness or in foggy weather. In the event of there being one or more engines in the Sidings and the Signalmen change duty, the Signalman relieved must give all information to the Signalman who relieves him, and also make an entry of the circumstances across the figure lines in the Train Register Book, and both Signalmen must initial such entry.

**STRICKLAND ROAD LEVEL CROSSING.**—(1) A Shunter or other competent person must remain in the immediate vicinity of the crossing whilst any local shunting is being done, and in the event of it becoming necessary for vehicles to be shunted over the crossing, the Shunter, or employe appointed for the purpose, must precede the engine, or leading vehicle as the case may be, in order to see that pedestrians, animals, and vehicles are kept clear.

(2) If a Shunter is not in attendance for an engine movement, the Driver must, before proceeding over the Crossing, send his Fireman to carry out the duties specified in clause 1 hereof.

**8. WORKING OF ADJACENT SIDINGS.**—Outwards trucks may be cleared from, and inwards placed at Epsom, White Hills, California Gully, and Northern and Bendigo Brick Co.'s Siding during darkness, provided the engine be accompanied by two Shunters. Engines are not permitted

## SPECIAL INSTRUCTIONS.

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to run on the Bendigo Pottery Co.'s Siding at Epsom; a notice board lettered "ENGINES MUST NOT GO PAST THIS POST" is erected at the entrance to Siding.

Trucks must be cleared from, and placed at, the Gas Company's Siding during the hours of daylight only.

### BENDIGO RACECOURSE PLATFORM.

1. A Switching Instrument is provided at Bendigo Racecourse Platform, and this Station is opened and closed when authorised by the General Superintendent and in accordance with the unstructions of opening and closing Electric Staff Stations where a Switching Instrument is provided. See pages 627-632.

2. At the Up end of the Yard, the Hand Points are normally secured by a Staff Lock; there is a Scotch Block at the Up end of the Siding. At the Down end of the Yard the Hand Points in the Main Line are normally secured by a Staff Lock, and the Safety Points in the Siding are secured by a hand-bar and padlock.

3. Up and Down Home Signals are provided, and when the Station is Switched "Out" the Signals are crossed in accordance with Regulation 91. The Signaller will be responsible for the crosses being promptly removed from and replaced on the Signals, and for the Points being properly secured, according to requirements.

4. The Signal Levers to be padlocked in the Danger position when the Bendigo Racecourse Platform is closed as a Staff Station. The keys of the padlocks which secure the levers of the Fixed Signals, and the keys of the padlocks which secure the locking bars and Scotch Block are with the Station-master, Bendigo. The District Superintendent, Bendigo, will arrange for the employe who will take charge at the Bendigo Racecourse Platform to obtain them.

### WHITE HILLS BALLAST SIDING.

The Catch Points at exit from the Ballast Siding are worked by an ordinary Spur Lever, and secured by a Plunger connected by rodding to the lever operating the Staff-locked Points in Main Line at Up end of the Siding.

### NORTH BENDIGO JUNCTION—HUNTLY—BAGSHOT— GOORNONG.

A Composite Electric Staff is provided for the Section, North Bendigo Junction—Goornong, and, when specially authorised, Huntly and Bagshot will be opened as an Intermediate Block Post, and worked in accordance with the Instructions shown on pages 632-639.

### ROCHESTER—STRATHALLAN—ECHUCA.

A Composite Electric Staff is provided for the Section Rochester—Echuca, and, when specially authorised, Strathallan will be opened as an Intermediate Block Post, and worked in accordance with the Instructions shown on pages 632-639.

## NORTHERN SECTION.

### ECHUCA.

**1.** The Interlocking frame, from which the Points and Signals at the New Goods Yard Junction at Echuca are operated, is worked by the Yard Staff under instructions from the employe in charge of the Staff Working and Signalling at Echuca. Telephone communication is provided between the Station and the frame.

**2.** (a) The employe working the frame must not permit an engine or train to proceed from the Yard to the Main Line for shunting purposes until he has obtained the permission of the Signalman at Echuca Station, and it must be distinctly understood that, except as laid down in sub-clause (b) hereof, such permission only applies to the Main Line inside the Up and Down Home Signals worked from the Interlocked frame. (See Instruction—"Fouling the Running Line," on pages 655-656.)

(b) In the event of it being necessary for a train or engine to proceed from the New Yard beyond the Up Home Signals for shunting purposes, the employe in charge of the frame must so inform the Signalman at Echuca, and obtain his special permission for the movement. Before granting permission the Signalman at Echuca must take the necessary precautions in accordance with the Electric Staff Rules, and, when giving the verbal permission to the employe in charge, must plainly state on which Line (Bendigo or Toolamba) the shunting outside the Home Signal may be conducted.

(c) The messages may be exchanged by the telephone provided, and all messages received by telephone in connection with Train Running must be dealt with as laid down on pages 141-142, and not acted upon until thoroughly understood.

**3.** Unless in possession of the proper Staff for the Section, engines or trains must not run in the Down direction on the Main Lines between the New Yard Junction and Echuca Station, and when in possession of the Staff, must always run on the Line for which the Staff applies.

### BARNES — BALRANALD LINE.

**1.** (a) On the abovementioned Line traffic is worked under the Rules for Working Single Lines of Railway by Train Section Orders, as shown on pages 562-579.

(b) The Divisions and Crossing Stations in the respective Divisions are as specified hereunder:—

Divisions.	Crossing Stations.
Barnes—Wakool . . . . .	Benarca, Womboota, Thyra, Bunnaloo, Caldwell, Yallakool.
Wakool—Moulamein . . . . .	Burraboi, Niemur.
Moulamein—Balranald . . . . .	Perekerten, Impini, Yangalake.

## SPECIAL INSTRUCTIONS.

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### WOODVALE.

A Switching Instrument is provided at Woodvale, and this Station is opened and closed, in accordance with the Instructions shown on pages 627-632.

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### KERANG—LAKE CHARM—MYSTIC PARK—LAKE BOGA.

1. A Composite Electric Staff is provided for the Section Kerang—Lake Boga, and, when specially authorised, Lake Charm or Mystic Park will be opened as an Intermediate Block Post and worked in accordance with the instructions shown on pages 632-639.

2. (a) A Divided Staff for the Sections Kerang—Lake Charm, Lake Charm—Lake Boga, is provided in the Instrument at Kerang, and, when specially authorised, these Sections will be worked in accordance with the Instructions shown on pages 643-645.

(b) **MASTER KEY.**—A Master Key, lettered Kerang—Lake Boga, has been supplied to the Station-master at Kerang, and will be used to open Staff-locked Points at intermediate stations when a train is travelling on a portion of the Composite Staff, or (when the Divided Staff is in use) on a Staff Ticket. The Master Key must be used in accordance with the instructions shown on pages 554-556, except that the reference to endorsing the Staff Ticket will not apply when the "Ticket" portion of the Composite Staff is in use.

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### CASTLEMAINE—MALDON JUNCTION, GUILDFORD AND MALDON.

1. (a) The Line between Castlemaine and Maldon Junction is worked under the Automatic System of Train Signalling on a Single Line Section; and Remote Control of Points and Signals at an Unattended Junction.

(b) Maldon Junction is an unattended Station, but the Points and Signals at this Junction are worked and controlled from Box "A," Castlemaine, under the system of Remote Control of Points and Signals. See Special Instructions contained in pamphlet "C14/26." Employees concerned must, if not in possession of the special pamphlet referred to, apply for a copy through their superior officer.

2. (a) The Section, Maldon Junction—Guildford, is worked under the Electric Staff System. On the Maldon Junction—Maldon Section the Train Staff and Ticket system is in force.

(b) The Electric Staff Instrument and Train Staff and Staff Ticket Box for the Sections mentioned in clause (a) hereof are fixed in Box "A," Castlemaine, and the Signaller there is responsible for the working of these systems in their respective Sections.

(i.) Although the Electric Staff for the Section Maldon Junction—Guildford, or the Train Staff or Staff Ticket for the Section Maldon Junction—Maldon (or when Shelbourne Junction is open, Maldon Junction—Shelbourne Junction, see following Instructions respecting the Maldon—Shelbourne Line) must be delivered to and received from

## NORTHERN SECTION.

the Signaller at Castlemaine, it must be distinctly understood that the Electric Staff system or Train Staff and Ticket System is only operative on the Guildford or Maldon side of Maldon Junction.

- (ii.) Drivers of Maryborough or Maldon Line trains will be held responsible for receiving the proper Staff or Staff Ticket, as the case may be, for the Line on which their trains are to run from Maldon Junction before leaving Castlemaine, and also for handing up the Staff or Staff Ticket on arrival at Castlemaine.
- (iii.) At Maldon Junction the normal speed signals for Down trains applies to the Maryborough Line, and the medium speed signal applies to the Maldon Line.

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### MALDON—SHELBOURNE LINE.

1. No one is in charge at Shelbourne Junction, and, except when it is open as a Staff Station in accordance with instructions issued by the General Superintendent of Transportation, the Fixed Signals are not in use. The Points (which lie for the Castlemaine Line) are secured in that position by a Padlock, the Key of which is in possession of the Guard. The train from Maldon to Shelbourne must stop clear of the Junction, so that the Guard can alter the Points; and the train must also be stopped on the return journey, so that the Guard may secure the Points in the proper position for the Castlemaine Line.

Whilst Shelbourne Junction is open as a Staff Station, the employe in charge must be in possession of the Key of the Padlock by which the Junction Points are secured.

2. The Maldon and Shelbourne Lines are ordinarily worked as one Train Staff Section. When a train or trains are required to run over any portion of the line on a Staff Ticket, Shelbourne Junction must (unless all the Ordinary and Special trains for the day are to run between Maldon Junction and Maldon only) first be established as a Temporary Staff Post for the extra train or trains. The Sections will then be Maldon Junction—Shelbourne Junction, Shelbourne Junction—Maldon, and Shelbourne Junction—Shelbourne; Train Staffs and Staff Ticket Boxes will be provided in such case, and the Fixed Signals will be brought into use.

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### McIVOR TIMBER COMPANY'S SIDING.

1. The McIvor Timber Company's Siding is situate at 63 miles 52 chains between Tooborac and Heathcote. The Points in the Main Line and the Safety Points in the Dead End Siding are rodded together and worked by a lever. The Points in the Main Line are secured by a Staff Lock, the Key of which is the Electric Staff for the Section Tooborac—Heathcote.

2. Any Departmental Engine which works at the Siding must not proceed out in the direction of the Company's Line a greater distance than will enable it to be set back into No. 2 or 3 Road. If there be outwards loaded trucks in No. 2 Road in excess of what the train can



## SPECIAL INSTRUCTIONS.

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take, they must be placed in the Dead-end Siding, which is near where the Company's Line leads off from the Department's. In order to lessen the distance that it will be necessary for the engine to proceed out on to the Company's Line in order to set back into No. 2 Siding, the engine must not enter the Siding with more than 3 trucks attached.

3. The Driver of any train that takes on trucks at the Siding will be held responsible for examining all such trucks, and generally for carrying out the Rules and Regulations and Instructions issued for the guidance of Train Examiners in Appendix iii., Book of Rules and Regulations, and the Instruction Book issued for the guidance of the employes of the Rolling Stock Branch.

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### HEATHCOTE LINE.

1. Every Mixed train that runs between Wallan and Bendigo must have the three goods vehicles next in front of the passenger vehicles screw-coupled. If there be less than three goods vehicles, then all the vehicles of which the train is composed must be screw-coupled.

2. If one or more of the vehicles which are screw-coupled be detached at a Roadside Station, then the screw couplings must be transferred to the other vehicles so as to maintain the required number in accordance with clause 1. If the number of goods vehicles be reduced to less than 3, the screw couplings released must be taken on to Wallan or Bendigo, as the case may be.

3. The Station-masters, Wallan and Bendigo, must see that a sufficient supply of screw couplings is kept on hand.

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### PYALONG.

(Mollison's Sand Co.'s Sidings.)

A Notice Board is erected at South end of Road "C" of the above Siding, and is lettered "ENGINES, VANS, CARS, HIGH-SIDED TRUCKS, AND TRUCKS LOADED ABOVE WATER LEVEL MUST NOT PASS THIS POST."

A tramway is constructed to run parallel with Dead-end at "B" Road, and the Company are responsible for keeping the Gate across the tram track closed and locked when not actually in use.

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### INGHAM.

(Trench & Co.'s Siding.)

The above Loop Siding is situate on the opposite side of the Line at the same mileage as Ingham Siding. The Siding owners will be responsible for seeing that trucks are kept clear of the Level Crossing at Up end of the Siding, and for keeping the Gate leading to the Siding closed and locked when not in use. When trucks are being placed at the Siding the Level Crossing must be left clear.

## NORTHERN SECTION.

**LEICHARDT.**

*Leichardt is opened and closed as an Electric Staff Station in accordance with instructions issued by the General Superintendent of Transportation.*

1. There is only the Running Line and one Siding at Leichardt, and in the event of it being necessary to cross trains there when the Siding is occupied by a vehicle or vehicles, the first train to arrive must be brought into the Platform Road, after which it must be set back and turned into the Siding, the Driver being first cautioned by the Signalman as to the state of the Siding. If at any time the number of trucks on hand is such that it will not be practicable to cross the trains the Signalman must advise the Staff Station on each side in good time so that other arrangements may be made.

2. When a train is allowed to run direct into the Siding (which must only be done when the Siding is clear), the Home Signal must not be exhibited for the train to be admitted into the Siding until the train has been brought nearly to a stand and a Green Hand Signal has been exhibited to the Driver in accordance with Clause (e) of Rule 1, Appendix (vii.), Book of Rules and Regulations. The Points on No. 2 Road lie for the Dead-end at the Up end of Yard, and the Driver of any train which requires to proceed out of No. 2 Road must not go forward with their trains until a competent employe is at the Points to turn the train out.

3. After sunset, and in foggy weather, a Red Light must be placed on the buffer-stops so as to be plainly visible to the Driver of an incoming train. In the event of there being any vehicle in the extension, the Red Light must be shown on such vehicle in the direction in which the Crossing train will enter.

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**BRIDGEWATER.**

1. Inwards trucks for the Water and Kerang United Roller Flour Mills Company, Bridgewater, may be placed for delivery on the Loop connecting the Station Yard with the Company's Mill Siding. Outwards trucks may be taken delivery of from the same place.

2. (a) During the time that shunting operations are in progress, the speed of any train between the Station Yard and the Mill Company's Loop must not exceed a rate of 5 miles per hour, and the engine or the loading vehicle, as the case may be, must be preceded over the Level Crossing by an employe, who must see that pedestrians, and animals, and vehicles are kept clear.

(b) Loose shunting of vehicles is not permitted between the Station Yard and the Mill Company's Loop: in every instance the vehicles must remain attached to the engine until placed in position on the Loop portion of Siding.

3. The Station-master or person in charge must see that this arrangement is carried out.

## SPECIAL INSTRUCTIONS.

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### INGLEWOOD.

When a train from Dunolly, with a load exceeding 40 per cent. of the full goods tonnage that the engine can haul from Arnold to Inglewood, is blocked at the Inglewood Home Signal, the front portion must, when the Signal to proceed is exhibited, be uncoupled and taken on to Inglewood, after which the engine must return for the second portion. Before the front portion of the train is uncoupled, the Guard must satisfy himself that the Van Brake has been put on securely, and that all the vehicle Brakes have been applied to prevent any possibility of the rear portion of the train moving away. The Air Brake, if in operation, must also be applied to the portion of the train left standing on the Running Line.

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### TEDDYWADDY.

1. Except when open as an Electric Staff Station the Home Signals at Teddywaddy are crossed in accordance with Regulation 91. The Points in Main Line at Up end are rodded to a Catch Blade in the Lead from Nos. 3 and 4 Roads, and to a derail in No. 2 Road, and the Points in Main Line at Down end are rodded to derails in the lead from Nos. 3 and 4 Roads, and in No. 2 Road.

2. (a) A Switching Instrument is provided at Teddywaddy, and this place will be opened and closed in accordance with the instructions shown on pages 627-632.

(b) When opened as a Staff Station the Staff Locks are removed, the Points in Main Line Plunger locked, and the Home Signals brought into use; Scotch Blocks will be provided in No. 4 (Shed Road). The Catch Points will be spiked to lie normally for Main Line, and Derail blocks removed.

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### BULLARTO.

Owing to the heavy falling grade at Bullarto, vehicles must not be shunted from the Siding to the Main Line, unless they are attached to the engine, and then only when there is a Hand Brake on the outer vehicle and a man with it. Every precaution must be taken to prevent the possibility of any of the vehicles running down the incline.

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### MUSK.

1. Musk Station is situated on an incline of 1 in 50, falling towards Daylesford; all shunting work must be done during the hours of daylight by Up trains. Trucks for the Down journey must be taken to Bullarto, and be sent forward from there by Down trains.

2. Before an engine is detached from its train, the Van Brake must be put hard On, and all Hand Brakes of trucks left standing on the Running Line must be On and securely fastened; the Air Brake must also be applied to that portion of the train left standing on the Running Line. If the train is composed of only one or two trucks and the carriages and van, sprags must be placed in the wheels of the carriages.

## NORTHERN SECTION.

3. The engine or any portion of the train must not be uncoupled until the Guard has secured the train and given the necessary Signal

4. The Air Brake must not be released, nor the Hand Brakes taken off, nor the sprags lifted, until all the vehicles are again properly coupled to the engine, and the train is ready to start.

### DAYLESFORD.

Vehicles must not be placed on the short dead-end Siding beyond the Turn-table.

### KINGSTON—MORRISH BROTHERS' SIDING.

Morrish Brothers' Siding leads off the Main Line at the Up end of Kingston Station, inside the Fixed Signals. It is worked by a train engine in possession of the Staff for the Section.

### MARYBOROUGH.

1. **Trains from Ballarat or Avoca Line Approaching the Distant Signal (Regulation 49).**—When a train is approaching Maryborough either on the Ballarat or Avoca Line, the Driver must, if he find the Distant Signal at Stop, bring his train to a stand at such Signal, and then draw cautiously forward towards the Home Signal.

2. **Shunting at Flour Mill Siding.**—The Flour Mill Siding at Maryborough leads off the Goods Yard, and crosses Carlyle-street outside the Interlocked Gates. The shunting engine does the necessary work at the Siding, and when a Light Engine or engine and vehicles are passing over the Crossing a Shunter must walk in front to see that pedestrians, and animals, and vehicles are kept clear.

3. **Loco. Yard and "B" Box.**—When a Driver requires to notify the Signalman at "B" Box that his engine is ready to leave the Loco. Yard, he must do so by means of the electric bell, in accordance with the following code:—

	Long.	Short.	Long.
Engine for Castlemaine Line . . . . .	1	..	..
„ „ Donald Line . . . . .	2	..	..
„ „ Ballarat Line . . . . .	3	..	..
„ „ Avoca Line . . . . .	1	1	..
„ „ Inglewood Line . . . . .	1	2	..
„ „ Shunting . . . . .	1	3	..
.. to work on Coal Stage . . . . .	1	1	1

4. In foggy weather, or when from any other cause there is not a good view, the Signalman at "B" Box must detain any engine coming from the engine-shed at Post No. 19 until such time as it can be allowed a clear run into the Yard without stopping at Post No. 18.

## SPECIAL INSTRUCTIONS.

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**5.** When shunting in the Grain Sidings, or proceeding from such Sidings to the Maryborough Yard, the Driver must not foul the Loco. Road unless he has received verbal instructions to do so from the Shunter-in-charge: before giving such permission, the Shunter-in-charge must obtain the consent of the Signaller, "B" Box, after which the Shunter-in-charge will be responsible for making proper provision for the safety of the movement before instructing the Driver to go forward.

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### BET BET BALLAST PIT LINE.

**1.** The Ballast Pit Line, which is 2 miles 17 chains in length, branches from the Up end of No. 3 (Shed) Road at Bet Bet. The Line which is unfenced, and runs on the side of a public roadway, is worked in accordance with the Train Staff and Ticket System; ordinarily, Staff Tickets are not in use.

**2.** Trains must not be permitted to run on the Ballast Pit Line during darkness, and the maximum speed over the Line must not exceed a rate of 10 miles per hour.

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### DONALD.

#### Hammill Street Level Crossing.

The Station-master at Donald must appoint a competent employe on each shift to proceed, as may be required, to the Hammill Street Crossing with Hand Signals as Crossing-keeper for the purpose of warning pedestrians and drivers of vehicles, etc., of Danger in every case in which a train or engine may pass over or foul the Crossing. The Station-master, or in his absence the Employe in charge, will be responsible for seeing that the following directions are thoroughly understood and strictly observed by each employe concerned:—

**1.** Before placing the Up Home Signal to the Proceed position for a train or engine, the Signaller must see that the appointed employe is at the Crossing, and similar precautions must also be taken before the Down Home Signal is placed to the Proceed position, unless arrangements are first made by the Signaller to prevent the Down train or engine from going forward to the Crossing.

**2.** Before giving permission for a Down train or engine to proceed towards the Crossing, the Signaller must see that the appointed employe is at the Roadway, and similar care must be taken by a Shunter or other authorised employe before giving permission or directing a Driver to move towards the crossing from any part of the Yard.

**3.** If during Shunting operations it become necessary for a train or engine to foul the Level Crossing from either direction, and the appointed employe is not in attendance, then the employe in charge of the shunting must go himself or send another competent employe to the Crossing to carry out the duties of the appointed employe, before

## NORTHERN SECTION.

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allowing the engine or train to go forward. If a Shunter is not in attendance for an engine movement the Driver must send his Fireman to the Crossing before fouling it from any part of the Yard, to carry out the duties prescribed for the appointed employe.

4. The Home Signal must be kept at Stop and a train or engine movement that may foul the public roadway must not be authorised until the employe who goes to the Level Crossing has exhibited a Green Hand Signal from that point to show that he is at his post. Before giving the Green Signal to the Signaller, Shunter or Driver, as the case may be, the appointed employe must see that all vehicles are clear of the Crossing, and after exhibiting the Signal he must remain at the Crossing and see that vehicular and pedestrian traffic is kept clear until the operations are completed.

A Red and a Green Flag must be kept in a box which is provided at a point near to the Crossing, and it must be known to all employes concerned. The employe protecting the Crossing during darkness must be provided with a Hand Lamp.

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### REDCLIFFS TO MERINGUR.

(Private Siding for the Mildura Shire at 351½ Miles from Melbourne.)

1. The above Loop Siding is provided for traffic inward and outward account Mildura Shire Council, Country Roads Board and State Rivers and Water Supply Commission.

2. The Points in Main Line at each end are rodded to Catch Blades in the Siding and secured by Staff Locks.

3. A Loading Chute is erected on Siding, and there is accommodation to load 18 (25ft.) trucks. A Notice Board lettered, "ENGINES, CARS, VANS, HIGH-SIDED TRUCKS AND TRUCKS LOADED ABOVE WATER LEVEL MUST NOT PASS THIS POST," is fixed on each side of the Loading Chute.

4. The Siding holders must give delivery of outward trucks properly coupled together with doors closed and secured ready for a straight pick up and, as far as practicable, loaded in Station order. First truck out must be placed ahead of Notice Board at end of Loading Chute corresponding to the direction in which trucks are to be taken.

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## Western and South-Western Sections.

### FEDERAL MANURE SIDING.

The Points at the Federal Manure Siding are secured by a Staff Lock, the Key of which is the Electric Staff for the Section Sunshine-Rockbank.

The work at the Siding must be performed by an authorised Goods train, the running between Sunshine and the Siding and vice versa being arranged by the Station-master, Sunshine. Engines of any class, except "C" class, are allowed to enter the Siding outside the Railway boundary as far as the Notice Board, which reads:—"ENGINES NOT ALLOWED TO PASS THIS POST." Enginedrivers to note accordingly. See Instruction, pages 472-479, with regard to trains working between the Siding and Sunshine without a Brake-van in the rear.

### PARWAN.

Owing to Parwan being approached in the Up Direction by a heavy rising grade, Up trains when crossing Down trains should, as far as possible, be given preference. An Up train should not be checked on the rising grade if it can be safely avoided.

### BACCHUS MARSH—MADDINGLEY ROAD CROSSING.

1. The following is the Code of Bell signals between the Station and Maddingley Road Level Crossing:—

	Rings.	
	Long.	Short.
Down Train leaving Bacchus Marsh . . . . .	2	—
Up Train leaving Ingliston . . . . .	3	—
Down Engine leaving for Rowsley, returning without any further Bell Signal; keep lookout for it . . . . .	2-3	—
Close Gates for shunting operations . . . . .	4	—
*Repeat previous signal . . . . .	—	1
Cancelling previous signal . . . . .	—	7

All Signals except the one marked thus \* must be acknowledged by repetition. See General Instructions, pages 231-232.

2. In the event of any failure of the bell the Fixed Signal for a Down train must be kept at the Stop position until the Driver has been informed of the failure; and in respect of Up trains the Fixed Signal must be kept at the Stop position until the Gates are closed across the public roadway, and, whenever it is reasonably practicable, the Driver must be informed of the failure before leaving Ingliston.

### BACCHUS MARSH—ROWSLEY—BANK BOX—INGLISTON.

A Composite Electric Staff is provided for the Section Bacchus Marsh—Ingliston, and, when specially authorised, Rowsley and Bank Box will be opened as Intermediate Block Posts and worked in accordance with the Instructions shown on pages 632-637.

## W. AND S.W. SECTIONS.

**ROWSLEY.**

*The following Instruction is applicable to Rowsley for Up trains only, but must not be brought into force without the authority of the General Superintendent of Transportation:—*

1. (a) Whenever Rowsley is opened as a Telegraph Block Post for Up trains, the messages specified hereunder must be exchanged on the Morse Telegraph Instruments between Rowsley and Bacchus Marsh.

(b) The Code forms used for advising the departure and arrival of Down trains (see page 635), are also to be used for advising the departure and arrival of Up trains. The **Is Line Clear?** and the **Line is Clear** messages must, however, be sent in full. The Signalman at Ingliston must advise Rowsley whenever an Up train departs. The time that the messages are forwarded and received must be recorded in the Train Register Book.

Messages referred to:—**\*Is Line Clear for.....?; \*Line is clear for .....; Train Departure; and Train Arrival.**

*\*Each of these messages should specify whether it refers to a Passenger train, Goods train, or a Light Engine.*

2. The person in charge at Rowsley must, in the event of **Line is Clear** not being obtained from Bacchus Marsh, or whenever the Regulations require it, stop any approaching Up train, and he must not allow it to proceed until **Line is Clear** has been obtained.

3. Drivers of Up trains working under this instruction must understand that the **through** Electric Staff for the Section Ingliston—Bacchus Marsh, which must be used, is subject to the Intermediate Block Post at Rowsley. The Driver of any Up train after having been stopped at Rowsley must not go forward towards Bacchus Marsh until verbally instructed by the Signalman.

4. Every Up train working under this instruction must be stopped at Ingliston, and the person in charge must advise the Driver and Guard that Rowsley is open as an Intermediate Block Post.

5. (a) The Signalman at Bacchus Marsh may give permission to Parwan to withdraw a Staff, if required, when Ingliston has a Staff out of the Instrument for any Up train for which Rowsley is a Block Post. Should, however, a Down train be approaching from Parwan, the Signalman at Bacchus Marsh must not send **Line is Clear** to Rowsley until the Down train has arrived, and the Line is clear to the Down Home Signal (Post No. 2), and the Points are set for the Clear Line. After having given permission for the Up train to approach from Rowsley an obstruction on the clear Line must not be permitted, and the Points must not be altered until the train has arrived within the Station Yard or has stopped at the Up Home Signal, Post No. 7.

6. This instructor does not in any way modify the working of trains under the Electric Staff System, whereby only one Up train is allowed between Ingliston and Bacchus Marsh at one and the same time.



## SPECIAL INSTRUCTIONS.

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**7.** When this instruction is brought into force, a Block and Signal Inspector must visit the Stations affected in sufficient time beforehand, in order to see that the employes responsible clearly understand the mode of working herein laid down.

**8.** The District Superintendent, Ballarat, must arrange to place a competent man in charge at Rowsley.

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### INGLISTON.

Every Up Goods and Mixed train must stop at Ingliston, and the Hand Brakes must be securely fastened down on all trucks, the Brake Blocks of which are not operated by the Air Brake, and on as many other trucks as the Driver may consider requisite to properly control the train. The Hand Brakes must be lifted at Bacchus Marsh.

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### BUNGAREE.

**(Bungaree and District Co-operative Society's Ltd. Siding.)**

**1.** The above Siding is an extension of the Victorian Producers' Co-operative Company's Siding at Bungaree.

A Notice Board lettered, "Engines must not pass this Post," is erected clear of the metalled roadway over the Siding, and 150 feet on the Up side of the Victorian Producers' Shed.

**2.** The Company must take and give delivery of all trucks between the Notice Board and the Victorian Producers' Shed, and must not allow any trucks to stand on or foul of the approach Roadway to the Departmental Goods Shed and Platform; they must not interfere with loading or unloading operations at the Victorian Producers' Co-operative Company's Shed.

**3.** Buffer stops are not provided at the end of the Siding, and the Company must take the necessary precautions to prevent trucks travelling over the end of the Siding.

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### WARRENHEIP.

Every Down Goods train must be stopped at Warrenheip, where the Driver must test the Air Brake and satisfy himself that it is in proper condition to control his train. If there be any doubt as to this, he must see that a sufficient number of Hand Brakes are securely fastened down, so that the train can be safely worked down the grade.

A Tail Rope must not be used during shunting operations at Warrenheip.

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### EUREKA.

**Eureka Tile Company's Siding.**—**1.** Eureka Tile Company's Siding leads off the Buninyong Line, with the Points facing in the Down direction, at 74 miles 28 chains on the Up side of Eureka Station. The Siding is 25 chains in length, from the Facing Points in the Main Line to the buffer stops at the Tile works. A Siding leads off the Main Siding at

## W. AND S.W. SECTIONS.

the works, but it is open for horse traction only. All inward and outward trucks will be received and despatched from the Tile works at the Down end of the Siding. There is an ascending grade from the Main Line to the works, the heaviest portion being 1 in 40.

**2.** The Points in the Main Buninyong Line and the Catch Points in the Siding are rodded together and worked by a lever, and the Points in the Main Line are secured by a Staff Lock. A notice lettered CATCH is erected clear of the Catch Points in the Up direction.

**3.** A short distance on the Up side of the Tile works there are Catch Points in the Siding for outward traffic. The Catch Points are secured by a Staff Lock, the key of which is the Staff for the Section Ballarat East—Buninyong. The train or engine must be stopped clear of the Catch Points in the Down and Up direction until the Catch Points are unlocked and set for the movement. Two Notice Boards are erected, one for the Down and the other for the Up direction, each of which is lettered:—"CATCH. NO VEHICLES TO PASS THIS POST UNTIL POINTS ARE UNLOCKED."

**4.** There are two Level Crossings over the Siding between the Facing Points in the Main Line and the Tile works. The first one, from the Main Line, is at Charlesworth-street. It is cattle-pitted on the side next the Main Line, and there is a Gate over the Line at the other side of the Crossing. The second Level Crossing is at Stawell-street, and there are Gates over the Line on each side of the Crossing. The Company has charge of the keys of the Gates, and is responsible for the opening, closing and locking of the three gates mentioned.

**5.** The speed of trains or engines must not exceed 5 miles per hour over any portion of the Company's Siding. The Guard or Shunter must walk in front of the train, in the Down and Up journey direction, over the whole length of the Siding, and warn drivers of vehicles and pedestrians at the Level Crossings and in the park. The Guard or Shunter must also see that the gates are secured in the open position for the train or engine.

**6.** Vehicles may be pushed to the Siding in accordance with the instructions for Eureka, pages 396-399.

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### BALLARAT EAST.

#### (Humffray Street Crossing.)

**1.** A Shunter must remain in the immediate vicinity of the Humffray-street Crossing whilst any local shunting is being done, and in the event of vehicles being shunted over the Crossing, he must precede the engine or the leading vehicle, as the case may be, in order to see that pedestrians, and animals, and vehicles are kept clear

**2.** When a Light Engine is running to or from the Engine Shed and the Coal Stage, the Fireman must act in the way laid down for the Shunter.

**3.** The Signaller, Ballarat East, must report to his superior officer any instance in which these orders are not carried out.

**SPECIAL INSTRUCTIONS.****BALLARAT AND BALLARAT EAST—WORKING OF LIGHT ENGINES.**

1. At night time or in foggy weather any Light Engine proceeding to or from Ballarat or Ballarat East via the Engine Road must carry on the buffer beam in front and rear a White and a Red Light.

2. In the event of it being necessary for a train engine to haul or push water trucks from Ballarat East to Ballarat along the Engine Road, a Red Light must be carried on the rear of the last vehicle when they are being drawn, and on the front of the leading vehicle when they are being pushed.

3. A competent Rolling Stock Branch employe must ride on the rear or leading vehicle, as the case may be, and be prepared to exhibit a Hand Danger Signal if necessary. The Locomotive Depot Foreman or other person in charge of the Depot to arrange.

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**BALLARAT YARD.**

1. Before any shunting movement is made towards "Z" or No. 8 East (locally known as 4 short) from either of the dead end sidings at East end of Goods Yard, the Shunter in charge must first obtain verbal permission from the Signalman at "A" Box.

2. Any shunting movements conducted on "X" (Goods Departure Road) must be in charge of a qualified Shunter, who, before conducting such operations, must have a thorough understanding with the Signalman at "A" Box specifying the movement which it is required to make and obtain the Signalman's permission. After giving such permission the Signalman concerned must not permit a conflicting movement until the movements specified have been completed, or a thorough understanding has been arrived at with the same Shunter as to any variation thereof.

3. Whenever there is an engine in the dead-end Siding, and one on "X" Road performing shunting operations at the same time, the Leading Shunters must have an understanding with each other in respect of the movements to be carried out.

4. The Yard Staff, Ballarat, must not leave trucks standing in the Goods Road (Coal Gear Siding) when it can be avoided. If it be found necessary to do this, the vehicles must be left at least 100 feet clear of the fouling Point of the Engine Road, and, after dusk, a Red Light must be placed on the end vehicle, facing the Yard Signal-box. Drivers when turned into this Siding to await an opportunity of going to the Engine-shed must keep a good look-out. The Yard Foreman will be held responsible for seeing that this instruction is complied with, and the Signalman, "A" Box, must report any instance in which it is disregarded.

## W. AND S.W. SECTIONS.

**BALLARAT (VARIOUS).**

Line or Siding.	Additional Instructions.
<b>Eureka . . . . .</b> <b>Sekirk's Siding . . . . .</b> <b>Ballarat Racecourse Siding . . . . .</b>	For instructions regarding trains being pushed between Ballarat and these Sidings, see pages 396-399. On the Waubra Line. Points are Staff Locked. This place is only open for traffic under instructions issued by the General Superintendent of Transportation.
<b>Doveton-street Wood Siding</b>	The Points lead off the Down Main Line and are trailing for Down trains. They are worked from "C" Box, Macarthur-street. Trucks are placed at and cleared from the Siding by a Shunting engine from Ballarat.
<b>Ballarat Flour Mills Siding</b>	Leads off Doveton-street Siding; the Disc Signal on Post No. 1 applies from Doveton-street Siding to the Down Main Line towards Post No. 3 or to the Flour Mill Siding. A Scotch Block is provided on the Flour Siding. The Key of the padlock securing the Scotch Block will be kept in the custody of the Signaller at Ballarat North, and Shunters requiring to work this Siding must obtain the key from the Signaller, and promptly return it after use. When not otherwise required the Scotch Block must be padlocked across the Rail; Shunters are responsible for this being done, and for the Hand Brakes on all trucks left in Siding being fastened down. The Signaller at Ballarat North must see that key is returned to him after use.
<b>Wardle's Timber Siding . . . . .</b> <b>Ballarat Cattle Yards Line . . . . .</b>	Leads off the Doveton-street Siding. This Line, which is worked under the Train Staff and Ticket System, leads off the North Western Line at Linton Junction; unless special instructions are issued to the contrary, the Driver of every train or engine, travelling on the Line, must have possession of the Train Staff. See clause 15, page 559. Trains must stop short of all Gates to enable the Shunter to open and close them.

Line or Siding.	Additional Instructions.
BALLARAT CATTLE YARDS LINE— <i>continued.</i>	Down trains must be brought to a stand at Up side of Cattle Guard crossing (situated about 30 yards from first set of Facing Points leading to loop) until signalled forward by the Guard who, before doing so, must remove Scotch Block and attend Level Crossings Gates.
<b>Ballarat Show Grounds Platform, White's Siding</b>	The Facing Points are worked from a two lever frame which is secured by an Annett Lock. When it is necessary to work at the Siding the Guard or Shunter in charge must obtain the Annett key from the Signaller at "C" Box, Macarthur-street. When shunting has been completed, the Guard or Shunter, as the case may be, must hand the Annett key to the Signaller at Linton Junction, who must return it to "C" Box by the next up train (Express excepted). The Signal Lamp at White's Siding is not lighted at night and trains must not work at the Siding after sunset or in foggy weather, nor if the Block Instruments for the Section Ballarat "C" Box and Linton Junction are out of order. There is a Derail Block at the exit from White's Siding.

### WENDOUREE.

At holiday and other times when trains run through between Buninyong and Linton Junction, and call at Wendouree, the District Superintendent, Ballarat, must arrange to place a competent employe in charge. The Down Home Signal is worked from a quadrant at the Up end of the Down platform. The Signal, in its normal position, is at Proceed.

### WENDOUREE AND LINTON JUNCTION.

The Ganger in charge of the length in which Wendouree Station is situate must arrange daily (Sundays excepted) with the Signaller at Linton Junction, to try the Up Signal on Post No. 12, from the lever on the Up platform at Wendouree in order to see that it works well and shows properly. The Signal wire must also be properly adjusted. A record of each test must be made in the Train Register Book.

## W. AND S.W. SECTIONS.

### BURRUMBEET RACECOURSE JUNCTION.

1. A Switching Instrument is provided at Burrumbeet Racecourse Junction by which this place is opened and closed in accordance with the Instructions shown on pages 627-632.

2. When Special traffic is to be run to Burrumbeet Park the Section Burrumbeet Racecourse Junction—Burrumbeet Park will, unless otherwise arranged by the General Superintendent, be worked under the Rules of the Train Staff and Ticket and Single Line Block Systems; see Appendices ii. and vi., Book of Rules and Regulations.

3. At Burrumbeet Racecourse Junction there is an interlocked Ground Frame containing six levers, the levers being secured in the normal position by means of a bar and padlock.

The Train Staff and the Ticket Boxes for the Branch Line are secured in the Cabin at the Racecourse Junction. The keys of the padlock on the interlocked frame, of the Cabin and drawer in which the Train Staff is secured are in the custody of the Station-master, Burrumbeet. The Block and Signal Inspector will obtain the keys as required, and return them to the Station-master when the Special traffic is finished and the levers have been secured in the normal position.

The Points in the Main Line are secured by a Miniature Staff Lock, the key for which will be the Local Staff for the Section Burrumbeet Racecourse Junction—Burrumbeet. Unless a Master Key is provided, the Signaller at Burrumbeet Racecourse Junction must obtain permission (under Rule 18) to withdraw a Staff to unlock the Facing Points when required, and the Staff must be replaced in accordance with the same Rule when necessary for a Through train to pass.

4. The Fixed Signals at Burrumbeet Racecourse Junction must be brought into use when it is open and the crosses replaced on the Signals when it is closed as a Staff Station (See Regulation 91). The Station-master, Windermere, must have the necessary lamps for the Signals at Burrumbeet Racecourse Junction and Burrumbeet Park trimmed and ready for use. The District Superintendent is to arrange regarding the lighting of the Signals if necessary.

There is no Siding at Burrumbeet Racecourse Junction, and trains must not be crossed there.

5. The Block and Signal Inspector will see that the Signalling arrangements are properly carried out, that each employe understands the Special Instructions, and, unless otherwise arranged, he must supervise the Special traffic and Signalling arrangements on the Branch Line; the Block and Signal Inspector must provide himself with a Master Key for use at Burrumbeet Racecourse Junction.

### DOBIE.

At the Up end of Dobie Station a Dead-end Siding leads off No. 2 Road, and, in the event of it being necessary at any time to shunt a train into this Siding when it is occupied, the Driver must first be cautioned as to the state of the Siding, and advised of the position of the vehicle or vehicles in it, and how many. Regulation 131 must also be observed.

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## SPECIAL INSTRUCTIONS.

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Between the hours of sunset and sunrise, and in foggy weather, a Red Light must be placed on the buffer stops so as to be plainly visible to the Driver, or, if there be any vehicle in the Siding, the Red Light must be shown on such vehicle.

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### ARMSTRONG.

On the Up journey, Armstrong is approached by a 1 in 50 rising grade, upon which trains should not be stopped if it can be safely avoided. When trains are timed to meet at this Station, the Up train should be given preference. If a train with more than half the scheduled load stops on the incline, the rear portion must be at once secured, by fastening down all Hand Brakes, the front portion must then be uncoupled where required, and taken on to the Station, after which the engine must return for the second portion.

In the case of an Up double-headed Goods train, the Signaller must arrange as far as practicable for the train to have a clear run into the Station.

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### GREAT WESTERN—IRVINE'S SIDING.

Irvine's Siding is on the Up side of Great Western Station, just outside the Distant Signal. The Points are secured by a Miniature Electric Staff Lock; Fixed Signals are not provided. Goods trains, during the hours of daylight, may be stopped for the purpose of taking consignments up to 2½ tons while the train waits; but for consignments exceeding 2½ tons weight, a truck must be placed at the Siding, and for this purpose one or more vehicles may, during daylight, be pushed from Great Western to the Siding.

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### STAWELL FLOUR MILL SIDING.

The Flour Mill Siding leads off the Grampians Line, and crosses the Main Line at the Down end of the Station, inside the Up Home Signal. The Points are secured by an Annett Lock, the Key of which when not required to release the Siding Points, is kept in a duplicate Lock on the Interlocking Frame in "B" Signal-box.

The Siding is worked by a Shunting engine in charge of a Shunter, who is responsible for the prompt return of the Annett Key when the shunting work has been completed.

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### DEEP LEAD.

On the Down journey, this Station is approached by a rising grade of 1 in 75. Trains should not be stopped on this Grade if it can be safely avoided, and, as far as is reasonably practicable, when trains cross, precedence should be given to the Down train.

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### MURTOA.

1. When it is found necessary to place a gangboard across No. 1 or No. 2 Road at Murtoa for the purpose of effecting the delivery or transfer of van goods, samples, etc., the board must not be placed across either Road without first obtaining the sanction of the Signaller, and

## W. AND S.W. SECTIONS.

the Signaller must not give his sanction if he has exhibited a Signal for a train or an engine to approach. Even after the Signaller's sanction has been obtained, the board must not be placed in position except by the direction and in the presence of the Station-master, who must see that all the Fixed Signals applying to the Road concerned are at Stop, and that the Signaller has applied a sleeve to the lever of each Signal applying to such Road.

2. The Signaller must keep the lever sleeves applied, until by personal observation he has satisfied himself that the gangboard has been removed, and the Station-master has instructed him that it is no longer required.

3. Passengers must not be permitted to use the gangboard as a means of crossing the Line.

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### DIMBOOLA.

#### (Standing of Branch Line Train Outside Up Home Signal on the Branch Line.)

When, owing to congestion in the local Yard or other causes, it is necessary to stand the Branch Line Train outside the Home Signal on the Branch Line, and the Train Staff for the Section Dimboola—Jeparit is at Dimboola, this may be done, but, in every instance, the following precautions must be adopted:

- (i.) The placing of the Train on the Branch Line must only be done under the direction of the Station-master or Night Officer, who must first sight the Train Staff for the Section, and then inform the Signaller of what is intended to be done. After the train has been placed in position, and before the engine is uncoupled, the Shunter in charge of the movement must, in addition to screwing on the Hand Brake in the Van, apply a sufficient number of Hand Brakes.
- (ii.) Immediately the Engine is detached, the Shunter must place a Red Flag by day or Red Light by night or during foggy weather, on the front vehicle of the train.
- (iii.) All levers controlling Signals leading on to the occupied Line must be secured in the normal position by sleeves. Prior to the train being placed on the Branch Line the number of vehicles being handled must be checked by the Signaller, and a record made in the Train Register Book; and when the train is being cleared the Signaller on duty must check the number of vehicles in order to definitely ascertain that the whole of the train has been cleared from the Branch Line.

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### MURTOA—COROMBY—MINYIP.

A Composite Electric Staff is provided for the Section Murtoa—Minyip, and, when specially authorised, Coromby will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.



**SPECIAL INSTRUCTIONS.**

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**MURTOA—WARRACKNABEAL—BRIM.**

In addition to the Staff Exchange Box at Brim, a Staff Ticket Exchange Box is provided, and will be in use for No. 12 Up Rail Motor on Fridays, and will be worked in accordance with the Special Instructions shown on pages 210-216; the Driver of the Rail Motor to act as laid down for the Guard in such instruction.

The Staff for the Sections Warracknabeal—Sheep Hills, Sheep Hills—Minyip and Minyip—Murtoa, which will be withdrawn from the instrument at the respective Stations for No. 14 Up on Thursdays and 12 Up on Fridays, will also be used for Nos. 1 and 11 Down on Fridays without being placed through the instrument at Sheep Hills, Minyip or Murtoa, and in this connection when No. 14 Up on Thursdays and 12 Up on Fridays arrives at Murtoa the Signalman at Murtoa must obtain the Staff from the Driver, and providing the Rail Motor is complete immediately place such Staff in the holder of the instrument, but not in the interior of the instrument; when it is required for the return journey, i.e., Nos. 1 and 11 Down Fridays, the Signalman may hand the same Staff to the Driver.

After the Staffs referred to in the preceding paragraph have been withdrawn for the forward Section from the instrument at the respective Stations for No. 14 Up on Thursdays and No. 12 Up on Fridays and Line Clear has been given to Warracknabeal for such trains, the Signalman at Sheep Hills and Minyip must, before going off duty, place both Up and Down Home Signals to the Proceed position.

When the Signalmen at Sheep Hills and Minyip report for duty on Friday and Saturday mornings, they must at once advise the Signalmen on either side of them, but the Signalmen at Sheep Hills and Minyip must keep the Staff out of their instruments until they receive the cancelling signal from the Station in the rear, when they must send the cancelling signal to the Station in advance.

When the Signalman at Warracknabeal reports for duty on Friday morning and the Staff for the Warracknabeal—Sheep Hills Section is in the Staff Ticket Exchange Box, he must obtain such Staff and place it in the holder of the instrument until intimation is received that the Signalman at Sheep Hills is in attendance, when he may restore the Staff to the instrument and send the Cancelling signal.

When No. 11 Down on Fridays arrives complete at Warracknabeal the Signalman on receipt of the Staff must place it in the holder of the instrument until intimation is received that the Signalman at Sheep Hills is in attendance, when he may restore the Staff to the instrument and send the Cancelling signal.

The Transportation Officers in charge at Murtoa and Hopetoun must instruct the Driver of the Rail Motor in respect to his duties at the various Stations.

## N.W. AND S.W. SECTIONS.

### HORSHAM—BOROUGH COUNCIL'S TRAMWAY.

The Horsham Borough Council's Tramway, which is about  $4\frac{1}{2}$  miles long, leads out from the Station Yard. The following are the conditions concerning the use of the Departmental trucks on the Tramway:—

1. Bogie trucks must not be allowed on the Tramway under any circumstances.

2. (a) Trucks, other than bogie trucks, to be loaded on the Tramway, may be allowed to run to the place where the Tramway junctions with the Noradjuha and Stawell Roads, beyond the Wimmera Bridge; the Point beyond which trucks are not allowed to run is indicated by a Notice Board.

(b) Trucks may only enter upon the Tramway on the further condition that they are to be loaded for some Station on the Victorian Railways other than Horsham.

A Notice Board, lettered as follows: "**Engines must not pass this Post,**" is erected at the boundary where the Department maintains the track.

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### MIRAM.

A lamp, which must be lighted at night, is provided to indicate the position of the Water Crane.

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### LAVERTON.

**Explosives Traffic.**—Shunting operations by means of an engine must not be permitted in the Explosives Receiving Shed Road when explosives are being handled in the Shed, neither must any such operation be permitted on this Road when explosives are in the Shed waiting to be loaded.

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### WERRIBEE.

The Points in Siding "D" and the Catch Points in the Cattle Siding are rodded together and are worked by a Ground Lever. These Points are secured by an Annett Lock, the key of which is normally kept in a Duplicate Lock on the Interlocked Frame in the Signal-box.

When, during the absence of the key from the Signal-box, it is necessary to Signal a train from No. 2 Road to Siding "D," the Signalman must (before exhibiting the Signal) warn the Driver not to pass over the Annett Locked Points in Siding "D" until instructed to do so by the Shunter in Charge.

**Up Goods Trains, with trucks for Newport.**—See Special Instruction, page 887.

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### CORIO—NORTH SHORE SIDINGS—NORTH GEELONG "A." (North Shore Sidings.)

1. The abovementioned Sidings, situate at between Corio and Box "A," North Geelong, are worked in accordance with the instructions for Working an Unattended Siding, Junction, or Station, equipped with an Intermediate Electric Staff Instrument. (See pages 649-656.)

## SPECIAL INSTRUCTIONS.

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**2.** The Phosphate Sidings and Ford's Siding are on opposite sides of the Main Line at North Shore, and in the event of it being necessary to transfer a train or engine from one Siding to the other a Staff must be obtained for this purpose from the Intermediate Electric Staff Instrument, in accordance with the following instructions:—

- (i.) The Guard or Shunter in charge of the train or engine must communicate with the Signalman at North Geelong "A" Box, and inform him what is required, and time it is anticipated the Staff will be in use.
- (ii.) On receipt of the message, the Signalman at "A" Box (in accordance with the precautions laid down in sub-clause (b) of clause 5 of the instructions shown on page 652), must send the **Release Staff at Intermediate Siding for Shunting Purposes Signal**, 4-2-2 to the Signalman at Corio, and if the Line be clear in accordance with Electric Staff Rule 4, the Signalman there will acknowledge the Signal and permit a Staff to be withdrawn if he can do so without delay to a more important train.
- (iii.) When the shunting is completed and the Main Line is clear the Guard or Shunter at North Shore will act as laid down in sub-clause (iii) of clause 4, page 651, and the Signalman at North Geelong, on receipt of the message, must send the Signal, **Shunting completed at Intermediate Siding, Staff replaced Signal**, 5-2-2 to Corio.
- (iv.) The time messages received and period of time Staff required, also code signals sent and received, must be entered across figure lines in Train Register Books.
- (v.) The Guard or Shunter at North Shore must not hold the Staff out longer than necessary, and the Staff must always be replaced immediately after shunting has been completed and Main Line is clear.

**3. (a) Geelong Freezing Works Siding.**—The Geelong Freezing Works' Siding is half a mile in length, and leads from the Phosphate Siding at North Shore. All vehicles must be placed on the Siding clear of the Main Line.

(b) Except when Special trains are run direct, the Siding must be worked by the Geelong Pilot engine, and at such times as will not interfere with ordinary traffic. The Air Brake must be continuous throughout the train, and the rear vehicle must be fitted with the Air Brake apparatus in proper working order. The engine must haul both ways on the Main Line, and trains exceeding 9 vehicles must have a Brakevan in the rear. When a Van is not attached, the Guard or Shunter must ride on the last vehicle. See instructions, pages 472-479.

(c) At the Siding there is a Loop below the Discharging Ramps which will hold 16 trucks and van clear, and 21 trucks can stand between the Cattle Pits and the Discharging Ramps. The excess number on any Special train must be left at North Geelong till required.

## W. AND S.W. SECTIONS.

(d) The grades on the Siding are as under, all falling towards the Works:—

	Chns.	
From Cattle Pit Crossing for	4	1 in 600 Down
then „	6	1 „ 70 „
„ „	5½	1 „ 106 „
„ „	14	1 „ 121 „
„ „	6½	1 „ 543 Up

The Discharging Ramps are on the abovementioned six-chain grade of 1 in 70.

(e) All Truck Brakes must be put down before the employe in charge of the operations leaves the Siding. Great care must be taken in loose-shunting trucks, which must not be allowed to move at a greater rate of speed than 3 miles an hour. If loaded trucks pass the Discharging Ramps, they cannot be hand-shunted back.

### CORIO QUAY.

The Geelong Harbour Trust controls the lighting of the Railway Sidings at Corio Quay.

The Harbor Trust's watchman will, on receipt of engine whistle as per following code, turn the lights on or off as required:

Lights required—1 long, 2 short, 1 long.

Shunting completed—1 long, 3 short, 1 long.

Shunters in charge to instruct Drivers accordingly.

### NORTH GEELONG, HARBOUR TRUST SIDINGS.

1. The entrance to the abovenamed Sidings is situated at and worked from Box "A," North Geelong. There is a Gate normally locked across the Sidings at about 350 yards from the Interlocked Points at Box "A." Shunters must obtain the key of Gate from Box "A," and when leaving the Sidings must secure the Gate and return the Key to the Signalman.

A Telephone connected to Box "A" is provided, and fixed near the Gate.

2. A Low Level Dead-end Siding leads to the left of the other Sidings near the Gate, and is about 65 chains in length, with a falling grade of 1 in 80 towards the Corio Quay. A Speed Board has been erected at the entrance to this Siding, with the following lettering thereon, "SPEED LIMIT 5 MILES PER HOUR." The two right-hand Roads leading to the Harbour Trust Sheep and Cattle Races, are about 57 chains in length, and known as Upper Level Sidings.

At about 18 chains from Gates, a single track leads to the Cresco Works Sidings, situate about 21 chains from the Junction, and consists

## SPECIAL INSTRUCTIONS.

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of a Straight Road leading to Dead-end, and a Loop Siding, each of which has accommodation for 14 vehicles clear of fouling point. The Dead-end Siding is 75 feet in length clear of Point

**3.** When an engine is working in the Sidings, a second engine or train must not be permitted to enter from Box "A" until it has been brought to a stand and the Driver informed that there is already an engine working at the Sidings.

**4.** Before an engine or train proceeding from the Sidings towards Box "A" is permitted to foul the Junction of the Low Level and other Sidings at the Gate mentioned in clause 1 hereof, the Shunter in charge must obtain permission from the Signalman at Box "A" North Geelong by the Special Telephone provided for the purpose.

The Shunter must inform the Signalman for what purpose the permission is required, and the latter must then take the necessary steps to prevent any conflicting movement.

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### NORTH GEELONG LOOP LINE.

**1.** (a) The Signalman at Box "A" or Box "C" must not permit a train or engine or any vehicle to enter upon the Loop Line without first obtaining permission from the Signalman at the opposite end of the Loop. The time at which the Loop is occupied and cleared must be recorded in the Train Register Books.

(b) The speed of any train or engine passing over the Loop Line must not exceed a rate of 10 miles per hour.

**2.** If the Road for which the Hand Points in Sidings "A" normally lie is clear, the Signalman at "A" or "B" Box may admit a Goods train provided that its speed be reduced to a rate not exceeding 5 miles per hour. A similar rate of speed must not be exceeded by any train or engine in the Sidings when proceeding in the direction of "A," "B," or "C" Box; and in every case the Driver, Fireman, Guard, and Shunter concerned must keep a good look-out for any conflicting movement.

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### NORTH GEELONG "A" AND "B" BOXES.

**1.** After a train has been despatched from "B" Box to "A" Box, the Signalman at "B" Box must not permit a second train or engine that is required to run through the Section to proceed towards **Post 25B** to await Line Clear, until he has received the **Train Arrival** signal for the preceding train, unless he can assure himself that the Running Line is clear beyond the Starting Signal and that Signal is at the Stop position.

**2.** Before permitting a shunting movement from Grain Sidings or Siding "A" to No. 2 Road towards Post 34, the Signalman must send and receive an acknowledgment of the **Blocking Back** Signal.

## W. AND S.W. SECTIONS.

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### NORTH GEELONG-FYANSFORD LINE.

**1.** This Line leads off "C" Siding near North Geelong "C" Box, and the Hand Points, which are secured by bar and padlock normally for the Siding, require to be released and held when necessary for a Down train to proceed to Fyansford. On the Up journey all trains must be brought to a stand on the Main Line, clear of the fouling point of "B" Siding, until signalled forward by the Guard or Shunter, who before doing so must see that the movement is properly protected.

**2.** (a) The Driver of every train or engine travelling on the Line must be in possession of the Train Staff for the Section.

(b) An engine must not run tender first on this Line during darkness, except in cases of urgency, and in any such case the speed must not exceed ten (10) miles per hour.

**3.** The Guard of a train required to proceed to Fyansford must obtain from the Signalman North Geelong "C" Box the Train Staff for the Section, and the Keys of the Hand Points in "B" Siding; he must hand the Train Staff to the Driver before the train leaves the Siding. On the return of the train the Guard must, when the train has arrived complete in "B" Siding, secure the Points and obtain the Staff from the Driver, which, with the Keys, he must at once deliver to the Signalman "C" Box.

**4.** At Fyansford, Catch Points are provided in the Main Line at the Up end of the Yard. Notice Boards, lettered "CATCH/STOP," are provided on each side of the Catch Points, which are secured by Staff Lock. The Driver must be careful not to pass these Boards until signalled forward by the Guard or Shunter, who must first obtain the Staff from the Driver and unlock the Points.

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### MAITLAND-STREET SIGNAL-BOX.

Unless the Proceed Signal is exhibited at the Down Home Signal (Post 6) Box "A," the Signalman, Maitland-street, must not take off his Down Home Signal (Post 2) for an approaching train until the train has passed the Distant Signal.

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### GEELONG YARD WORKING.

**1.** (a) "A" AND "B" BOXES.—Except in case of a movement attended by a Shunter, the Signalman in Box "A" must obtain the permission of the Yard Foreman before allowing any train or engine into Sidings "A" or "B," and, similarly, the Signalman at Box "A" or "B" must obtain the permission of the Yard Foreman before allowing any train or engine to enter No. 2 Road or Car Sidings Nos. 1 to 7, and in every case the Yard Foreman, before giving such permission, must make proper provision for the safety of the movement.

(b) The Signalman at "A" Box, and the Signalman at "B" Box must consult each other before using No. 2, or Car Sidings Nos. 1 to 7, so that they will not use the same Road, nor allow trains or engines to enter these Roads from opposite ends at the same time.

## SPECIAL INSTRUCTIONS.

**2.** At night time or in foggy weather, a Red light must be shown at both front and rear of vehicles standing in the Passenger Yard or on No. 2 Road, or on No. 1 Road in Car Sidings. The Shunter in charge must at once advise the Signalman at "A" or "B" Box when vehicles are placed in the Passenger Yard or on No. 2 Road, or the Signalman in both Boxes when vehicles are placed in No. 1 Road Car Sidings. The placing of vehicles to stand in No. 1 Road Car Sidings should, as far as possible, be avoided.

**3.** When a Down train or engine leaves "B" Box, no other train or engine is to be allowed to foul the Main Line until the first train or engine clears the Tunnel.

**4.** Engines must not foul the points of the Cross-over at the South end of "A" and "B" Sidings (near Crane Road) unless instructed to do so by the Yard Foreman or Shunter.

### GEELONG YARD AND GEELONG PIER.

In addition to the instructions laid down in this Book on pages 404-405, the following additional instructions are to be observed in connection with the working of traffic between the Geelong Yard and the Pier:—

**1.** Not more than 30 trucks must be sent in any one lot.

**2.** Twenty-five per cent. of the total number of trucks on the train must be fitted with the Air Brake, which must be in proper working order, and connected throughout the train.

**3.** (a) In the event of there being one engine at the Pier, and it is found necessary to send another engine there, the Yard Foreman must arrange for a Shunter to precede the second engine on the Down journey for the purpose of seeing that the Line ahead is clear. The speed of the second engine between "A" Box and the weighbridge must not exceed a rate of 5 miles per hour.

On the Up journey the Air Brake must be connected throughout the train, and the three last trucks must in every case be fitted with the Brake apparatus in proper working order.

(b) When a train or engine is ready to leave the Pier on the Up journey the Shunter in charge must communicate with the Signalman at "A" Box, Geelong, by means of the telephone, and obtain his permission for the movement. Before granting permission, the Signalman must ascertain the name and grade of the employe asking for such permission and satisfy himself that no conflicting movement is in progress, and apply a sleeve to Fixed Signal levers governing any contrary or conflicting movement.

The time message is received, and when permission is given, also the name and grade of employe asking for and receiving permission, to be entered in Train Register Book.

(c) The time of Departure and Arrival of all trains to and from the Pier must be recorded in the Train Register Book at Geelong "A" Box.

## W. AND S.W. SECTIONS.

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4. When necessary a train composed of loaded trucks may be assisted in the rear from Geelong Pier to the Geelong Station Yard, in accordance with the instructions laid down for engines assisting trains in rear, pages 332-342. Trains composed of empty trucks must not be assisted in the rear.

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### GEELONG RACECOURSE PLATFORM.

1. A Switching Instrument is provided at Geelong Racecourse Platform, and this Station is opened and closed in accordance with the instructions shown on pages 627-632.

2. At the Up end of the Yard, the Points in the Main Line and the Catch Points in the Siding are rodded together and worked by a lever. At the Down end of the Yard, the Siding extends to a Dead-end, and the Points in the Main Line and the Safety Points in the Siding are also rodded together and worked by a lever. The Points in the Main Line at each end of the Yard are secured with a Staff Lock.

3. Up and Down Home Signals are provided, and when the Station is Switched "Out" the Signals are crossed in accordance with Regulation 91. The Signaller will be responsible for the crosses being promptly removed from, and replaced on the Signals, and for the Points being properly secured, according to requirements.

4. The Signal Levers to be padlocked in the Danger position when the Geelong Racecourse Platform is closed as a Staff Station. The key of the padlocks which secure the levers of the Fixed Signals, and the keys of the padlocks which secure the locking bars, are with the Station-master, Geelong; the District Superintendent, to arrange for the employe who will take charge at the Geelong Racecourse Platform to obtain them.

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### SOUTH GEELONG—GROVEDALE—MORIAN.

A Composite Electric Staff is provided for the Section, South Geelong-Morian, and, when specially authorised, Grovedale will be opened as an Intermediate Block Post, and worked in accordance with the instructions shown on pages 632-642.

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### ARMYTAGE.

1. A Switching Instrument is provided at Armytage, and this Station is opened and closed in accordance with the Instructions shown on pages 627-632.

2. When trains are required to cross at Armytage the Guard of the first train to arrive must, unless a Conductor be with the train, render assistance by attending to the Plunger Lock and Hand Points according to the Station-master's requirements; when a Conductor is accompanying the train he must perform these duties.



## SPECIAL INSTRUCTIONS.

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3. During the time that Armytage is "Switched-out" the Station will be worked under the instructions laid down in pages 208-210, and the normal position of the Fixed Signals will be at "All Right" except when necessary to place them at the Stop position to release the Plunger Locking for shunting purposes. A Carriage Lock will be provided to secure the Platform Quadrant Levers while the Station is "Switched-out," and Guards must, after shunting is completed, secure the Scotch Blocks, replace the Plunger Lock, lower the Home Signals to the "Proceed" position, and lock the Quadrant Lever by means of a Carriage Key, immediately before giving a signal for the train to start.

4. The Points in No. 2 Road at each end of the Yard lie for No. 3 Road, and are secured in this position by handbar and padlock. The Station-master will be held responsible for seeing that these Points are secured and locked prior to going off duty on each occasion.

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### IRREWARRA—WARNCOORT—BIRREGURRA.

1. (a) A Composite Electric Staff is provided for the Section Irrewarra-Birregurra, and, when specially authorised, Warncoort will be opened as an Intermediate Block Post, and worked in accordance with the Instructions shown on pages 632-642.

(b) Warncoort is connected by telephone with Birregurra, but not with Irrewarra, and the necessary messages in connection with Train Signalling, etc., must, therefore, be transmitted via Birregurra.

2. MASTER KEY.—A Master Key is provided lettered Irrewarra-Birregurra, and used to open Staff-locked Points at Warncoort when a train travelling on a portion of the Composite Staff requires to work at this Station. This key is to be worked in accordance with the Instructions contained on pages 554-558, excepting that the reference to "endorsing Staff Ticket" will not, however, apply to this Section. The Master Key must be collected from the Driver by the Signaller at Birregurra immediately on arrival of the train, and returned the same day, or in time for use the next day, to the Station-master, Irrewarra, as a "Value" parcel. The Station-master, Birregurra, must see that this is done.

Except when required for use in accordance with these instructions, the Master Key must be secured in the Station-master's Safe at Irrewarra.

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### CAMPERDOWN CATTLE SIDING.

This Siding is situated half a mile on the Down side of Camperdown. The Points are secured by a Staff Lock. A Porter must be sent from Camperdown to assist the Guard when it is necessary to shunt there. See pages 396-399, with regard to trains being pushed between Camperdown Station and the Cattle Siding.

### TIMBOON JUNCTION.

*On any day when it is necessary for Timboon Junction to be open as a Staff Station, trains will be signalled under the Electric Staff Rules and Instructions, Timboon Junction being switched in and out as an Electric Staff Station in accordance with the Instructions for opening and closing Electric Staff Stations where Switching Instruments are provided. See pages 627-632 and the Special Instructions shown hereunder:—*

**1. Interlocking Apparatus and Signals.**—(a) When Timboon Junction is not open as an Electric Staff Station, the Facing Points of the Junction are secured for the through South Western Line, and the Up and Down Signals for that Line are in the Proceed position. The interlocking is secured in this condition by means of an Annett Lock, the Key for which, when the Junction is closed, is secured in the "Switching Out" Apparatus; unless otherwise ordered, the Signals will not be lighted.

(b) The Local Staffs in the Switching Box and the Annett Key are so interlocked with one another that it is not possible to withdraw any of them unless a Through Section Staff is used as a key for the purpose, and when once the Annett Key or one or both of the Local Staffs have been obtained, the Through Staff cannot be withdrawn from the Box until all three have been properly replaced.

**2.** On the Right-hand side of the Lock on the Frame is a plunger marked "A," and on the Left-hand side is a second plunger marked "B." The following is the mode of operating the Switching Apparatus to release the Interlocking:—

**When Opening the Junction.**—Insert the Through Staff in the centre receptacle, lettered side uppermost, and give it a quarter turn from left to right. This allows of the Annett Key being withdrawn, and also the Local Staffs, after the latter have also been given a quarter turn from left to right. When the Annett Key is turned part way in the Lock, the plunger, "B," will drop half way, thus releasing Signal Levers 13 and 12, which must then be placed in their normal position. Plunger "A" must then be lifted to its full extent, and the turning of the Annett Key completed, this will cause Plunger "B" to drop the remaining distance, and release Signal Levers 4 and 1, which must also be placed in their normal position.

**When Closing the Junction.**—First place all the Signal Levers in their normal position, then pull over Levers 6, 4, and 1, lift Plunger "B" half way, turn back the Annett Key part way, this will allow Plunger "A" to drop; pull over Signal Levers 12 and 13, lift Plunger "B" to its full extent, complete the turning of the Annett Key in the backward direction, withdraw the Key, and place it in the Switching Box. The Local Staffs must also be properly replaced in the Switching Box, after which the Through Staff can be given a quarter turn from right to left and withdrawn.

## SPECIAL INSTRUCTIONS.

### 3. The following must be noted in connection with irregularities:—

- (a) Should there be any failure of the Long Section Instruments, when the time arrives to obtain a Staff to open the Junction, the Junction must not be opened as an Electric Staff Station, but so that it can be worked, a Master Key lettered "Timboon Junction" is provided at Camperdown, and this must be handed to the Signaller, who will take charge. The Pilotman, who will be appointed in accordance with No. 27 of the Electric Staff Rules, must at the same time be informed. The Station-master, Camperdown, will be responsible for the safe custody of the Master Key whilst it is at his Station.
- (b) If on switching in it be found that a failure of the electric apparatus exist, the Junction must be kept open and trains dealt with in accordance with No. 27 of the Electric Staff Rules.
- (c) In the event of a train by which the Junction is to be switched out not arriving complete, and it is found necessary to clear any obstruction, the Junction must not be closed until such time as the Section is again clear.

4. The traffic on the Timboon Line is worked under the Rules of the Train Staff and Ticket system. The Train Staff for the Section, Timboon Junction—Timboon, must, when not in use, be kept in the office desk at the Junction.

5. There is no Siding accommodation at the Junction, and trains must not be crossed there except when specially authorised by the General Superintendent of Transportation.

6. The Signaller must be careful to lock the Signal-box, and see that everything is in proper order before he leaves.

### PANMURE—CUDGEE—ALLANSFORD.

1. (a) A Composite Electric Staff is provided for the Section, Panmure-Allansford, and, when specially authorised, Cudgee will be opened as an Intermediate Block Post, and worked in accordance with the instructions shown on pages 632-642.

(b) Fixed Signals are not provided at Cudgee, and sub-clauses (a) and (b) of clause 5 of the Instructions referred to above must be observed.

(c) Cudgee is connected by telephone with Panmure, but not with Allansford, and the necessary messages in connection with train signalling, etc., must, therefore, be transmitted via Panmure.

2. **MASTER KEY.**—A Master Key is provided, lettered, "Panmure-Allansford" and used to open Staff-locked Points at Cudgee when a train travelling on a portion of the Composite Staff requires to work at the Station. This key is to be worked in accordance with the Instructions contained on pages 554-558, excepting that the reference to "Endorsing Staff Ticket" will not, however, apply to this Section. The

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## W. AND S.W. SECTIONS.

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Master Key must be collected from the Driver by the Signaller at Allansford immediately on arrival of the train, and returned the same day or in time for use the following day, to the Station-master, Panmure, as a "Value" parcel. The Station-master, Allansford, must see that this is done.

Except when required for use, in accordance with these instructions, the Master Key must be secured in the Station-master's safe at Panmure.

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### WARRNAMBOOL.

**McCannan's Siding.**—This Siding leads off the Main Line about 600 yards on the Down side of Warrnambool. The Points in the Main Line and the Catch Points in the Siding are rodded together and worked by a lever, and the Points in the Main Line are secured by a Staff Lock, the Key of which is the Electric Staff for the Section Warrnambool—Illowa.

**Woollen Mill Co.'s Siding and Western District Co-operative Co.'s Siding.**—These Sidings lead off the Pier Line. The Points in the Main Line and the Catch Points in the Sidings are rodded together and worked by a lever. The Points in the Main Line are secured by Staff Lock, the Key of which is lettered "Warrnambool Pier Line." This Key must be given to the Guard or Shunter in charge of any train that will work at either of these Sidings, and it must be handed back to the Station-master or person in charge immediately the train returns. The Station-master or person in charge will be responsible for the safe custody of the Key when it is not in use.

**Loco. Sidings.**—The Points in the Main Line, leading to the Loco. Road, are rodded to a Derail Block in the Loco. Road and worked from a two-lever Frame at the Points: the Disc Signal from the Loco. Road to the Yard is worked by the other lever in the Frame.

The Points in the Main Line, leading to the Loco. Road, are Annett locked and duplicate Annett Locks have been placed on each of the Up and Down Home Signal levers.

The Key of the Annett Locks must be kept in a specified place in the Station-master's Office, and the Signaller will be responsible for its safe custody and use. The Signaller must see that he is in possession of it before authorising any movement over the Annett locked Points.

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### DENNINGTON.

1. At Dennington the Points in the Main Line at each end, and Catch Points at the exit from Nos. 2 and 3 Roads are connected by rodding and secured by Staff Lock.

Trucks loaded in for the Shire Council are to be placed in No. 2 Road, and may be discharged from that Road; to facilitate this being done a Crossing for Road vehicles is provided over No. 3 Road. Trucks in No. 3 Road must not be left standing on this crossing, and the attention of Guards and Shunters working at Dennington is directed to Regulation 131.

## SPECIAL INSTRUCTIONS.

**2. Nestles Milk Company's Siding.**—This Siding leads off No. 3 Road at Dennington Station. There are two Lines leading into the Company's works, one a High Level Line, with a fall towards No. 2 Road, and the other a Low Level Line, with a fall towards the Dead-end. The Guard or Shunter must see that trucks are placed on the High Level or Low Level Line, as required by the Company's representative.

A Scotch Block for the High Level Line is fixed clear of the fouling point off the Low Level Line; the Guard or Shunter must see that the Scotch Block is secured across the Line when shunting is completed.

Shunting is prohibited in the Low Level track during darkness; see also clause 3 hereof re loose shunting at B. I. Oil Co.'s Siding.

**3. British Imperial Oil Co.'s Siding.**— This Siding is at the Down end of Dennington; there is an open Level Crossing in the Main Line about 66 yards from the entrance to this Siding, and the attention of Guards and Shunters is directed to instructions on page 227 respecting protection of shunting movements over Level Crossings; loose shunting of vehicles must not be permitted over this Crossing during darkness.

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### LAL LAL LIGNITE SIDING.

**1.** The Lal Lal Lignite Siding is situate half a mile on the Up side of Lal Lal. It is connected to the Down Main Line, and there is also a Crossover to the Up Main Line. The Keys are kept at Lal Lal. The engine of an authorised Goods train accompanied by a Guard and Porter will be sent from Lal Lal on the Up Line, to do the necessary work; when a Porter does not accompany the train, the Fireman will assist the Guard by holding the Points as required.

**2.** The Guard will be held responsible for the proper security of the Points and Scotch Blocks, and the working of the Signal, also for securing any vehicle left in the Siding. On the arrival of the train at the Siding the Down Home Signal must be immediately placed at Stop, and kept in that position until the train is quite ready to proceed on its journey back to Lal Lal.

**3.** The Signaller at Lal Lal must give the **Blocking Back** signal to Elaine, and receive an acknowledgment of the same, in accordance with Rule 15 of Appendix 4, Book of Rules and Regulations, before the engine leaves for the Siding, and he must not give the **Obstruction Removed** signal until the train has returned complete.

**4.** Should the Block Instruments for the Lal Lal—Elaine Section fail, so that the Signaller at Lal Lal cannot send the **Blocking Back** signal, an engine must not be allowed to cross over to go into the Lignite Siding until the Instruments are again in proper working order. Trains must not work at the Siding at night or in **foggy** weather.

**5.** (a) A movable chute or hopper is fixed 378 feet from the Points at the Down end of this Siding, and when lowered for loading coal is within the headway clearance.

## W. AND S.W. SECTIONS.

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(b) Guards, shunters or other employes engaged in shunting operations at this siding must see that the chute is clear before permitting engines or high-sided vehicles to be shunted past it. (See Regulation 131).

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### LAL LAL RACECOURSE LINE.

The Lal Lal Racecourse Line, which is 2 miles long, leads off the Up Main Line at Lal Lal, and, ordinarily, is worked as a Single Line of Railway; unless Special Instructions are issued to the contrary, the Driver of every train or engine travelling on the Line must have possession of the Train Staff. See clause 15, page 559.

Special arrangements will be made for the working of the Line during race or other special traffic. When the Line is not in use, the Points in the Main Line are spiked over. Home Signals are provided at Lal Lal and the Racecourse, and they must be brought into use when traffic is being worked over the Racecourse Line.

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### YENDON.

1. Only Down trains may shunt at this Station. Trucks on Up trains for Yendon must be taken on to Lal Lal and there detached and returned by Down Goods. Trucks for Stations on the Up Side of Yendon must be picked up by a Down Goods, and detached at Warrenheip.

2. The Down and Up Distant Signal, also the Down and Up Starting Signals are out of use and crossed. The Up and Down Home Signals are worked in accordance with the instructions, clauses 1, 2, and 3, under heading Caretaker Stations, page 203.

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### MEREDITH—LETHBRIDGE.

*See Instructions respecting Medina, pages 700-701, and the following Instructions respecting Lethbridge Quarry Siding.*

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### LETHBRIDGE QUARRY SIDING.

1. The Lethbridge Quarry Siding is situate three-quarters of a mile on the Down side of Lethbridge. It is connected to the Up Main Line only; the Main Line Points are trailing for Up trains. Catch Points and a Scotch Block are provided. There is a Two-lever Ground Frame situated near the Main Line Points. The Points in the Main Line and the Catch Points in the Siding are rodded together and worked by one lever; the other lever works the Up Home Signal. The levers are interlocked and secured in their normal position by an Annett Lock, the key of which, together with the key of the Scotch Block, is kept at Meredith.

When a train which has worked at the Siding arrives at Lethbridge the Guard must hand over the keys to the Station-master or person in charge there, and they must be returned to Meredith by the first available train.

## SPECIAL INSTRUCTIONS.

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**2.** The Guard of any Up train that is authorised to work at the Siding will be held responsible for the proper security of the Points and the Scotch Block, and the working of the Signal, also for securing any vehicles left in the Siding. On the arrival of the train, the Home Signal must be immediately placed to, and kept at the "Stop" position until the train is quite ready to proceed on its journey.

- (i.) If it be necessary to supply the Quarry Siding with trucks from Lethbridge, the Guard will be so instructed by the Signalman, Meredith, who must be advised in good time by the Station-master, Lethbridge. In such case, the Guard, after placing on his train the loaded trucks received from the Quarry Siding, must hand the Driver a Wrong Line Order authorising the engine to return to the train at the Quarry Siding from Lethbridge on the wrong line in accordance with Regulation 243, and despatch the engine light to Lethbridge; the Guard to remain with the train at the Siding.
- (ii.) On arrival of the engine at Lethbridge the Wrong Line Order must be delivered to the Signalman, who must arrange for the empty trucks for the Siding to be picked up and pushed to the Siding, and also for a competent employe to ride on the leading vehicle; see clause 4, page 397.
- (iii.) On arrival of the empties at the Quarry Siding they must be placed in the Siding and the train will then depart for Lethbridge.
- (iv.) A record must be kept in the Train Register Book at Lethbridge showing time of arrival and departure of engine, and Wrong Line Order must be cancelled and attached to the page of the Train Register Book containing the entries for the date it is used, and forwarded with the Book to the Block and Signal Inspector's Office.

**3.** (a) When it is not practicable for other than a night train to work at the Siding, the Fixed Signal must be lighted.

(b) Trains must not work at the Siding in **Foggy** weather, nor when trains are being dealt with in accordance with Block Rule 27.

(c) The engine must not go inside the Scotch Block at the Quarry gate.

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### LETHBRIDGE.

A Refuge Siding leads from the Down Main Line at the Up end of the Station. The Siding is 1770 feet in length.

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### GHERINGHAP.

Drivers of Up trains approaching Gheringhap must stop clear of the Level Crossing if the Home Signal is at the Stop position; the Station-master must also give this matter his attention, and, as far as possible, avoid obstructing the Level Crossing.

W. AND S.W. SECTIONS.

**MOORABOOL.**

There is a falling grade of 1 in 92 into Dead-end Siding "A" at Up end of No. 2 Road at Moorabool, and the following instructions regarding the crossing of heavy Up Goods trains with Down trains must be observed:—

(a) Up Goods trains of more than half the scheduled tonnage must not be turned into Dead-end Siding "A."

(b) When an Up Goods train with over half its scheduled tonnage is to cross a Down Goods train, the Up train must be kept at the Up Home Signal until the Down train has been turned into No. 2 Road. A Down Goods train, when crossing an Up Goods train with over half the scheduled tonnage, must be turned into No. 2 Road and the Up Goods train held at the Up Home Signal until this is done.

(c) When an Up Goods train with over half its scheduled tonnage is to cross a Down Passenger or Mixed train, the Goods train must be held at the Up Home Signal until the Down train is standing clear on No. 1 Road.

(d) Guards of Up Goods trains to advise the Signaller at Gheringhap regarding engine and tonnage, and the Signaller to then pass on the advice to Moorabool.

**FORREST.**

Before an Up train that will travel on the Staff leaves Forrest, the Guard must place the Down Home Signal to the Proceed position.

The Down Facing Points are normally secured by Annett Lock.

**COLAC - CROWES LINE.**

1. (a) On the abovementioned Line traffic is worked under the Rules for Working of Single Lines of Railway by the system of Train Section Orders, as shown on pages 662-679.

The Divisions and Crossing Stations in the respective Divisions are as specified hereunder:—

Divisions.	Crossing Stations.
Colac—Beech Forrest. Beech Forrest—Crowes.	Barongarook. Gellibrand. Wylangta.

(c) The Points in Main Line at all Intermediate Sidings are rodded to Derails in the Sidings and secured by Staff Locks; it is, therefore, necessary for the Driver of each train running on the Line to carry a Master Key. Master Keys have been provided as shown hereunder:—

COLAC.—Two lettered "Colac-Beech Forest" and numbered 1 and 2.

BEECH FOREST.—Two lettered "Beech Forest-Colac," and numbered 1 and 2.



## SPECIAL INSTRUCTIONS.

**CROWES.**—One lettered "Crowes-Beech Forest."

Control Officers must keep a close check over the Master Keys, which, when not in use, must be locked away.

The Instructions contained in clause 8 (Staff and Ticket Working), pages 554-557, must, as far as is practicable with the System of Working Single Lines by Train Section Orders, be strictly complied with.

The messages referred to in sub-clauses (f) and (g), page 555, must be exchanged, and the Train Register Books made the medium of recording all movements of the Key, the numbering and correct lettering being shown in each instance; the Station-master, Gellibrand, must sight Master Key in every case, and advise the Station in the rear as laid down in the Instructions referred to.

**2. (a) BARONGAROOK.**—This Station is an unattended Crossing Station, equipped with Home Signals and Plunger Locks. The normal position of the Home Signals is at Stop, and they are secured in this position by Carriage Locks at the quadrants on Platform, and at Plunger Locked Points.

(b) The Derails at each end of No. 3 Road at this Station are close up to the fouling point of No. 2 Road. Guards, enginemen and others must, therefore, exercise vigilance when shunting, and satisfy themselves that vehicles in No. 3 Road are clear of the fouling point before turning a train or vehicle into No. 2 Road.

(c) When a train is to be despatched from Barongarook, and it is known that the next train to pass through will not cross another train there, the Control Officer, Colac, may arrange for the Guard of the first train to place the Home Signal in the direction from which the next train is to run, to the Proceed position, but the Guard of such next train must also be instructed in respect of the Signals, which must be placed at Stop and the quadrants locked in that position whenever a crossing is to be arranged.

It must be distinctly understood that in the circumstances set out above one Signal only must be left at the Proceed position; the other Signal must be locked at the Stop position.

**3. GELLIBRAND.**—There is a Station-master in charge at this Station, and the Control Officers at each end of the DIVISION must inform him by a Telegraph message whenever Crossing or Side-tracking of trains is arranged to take place at Gellibrand.

When inspecting the Master Key, as laid down in clause 5, the Station-master, Gellibrand, must also peruse the Section Order held by the Driver.

**4. WYELANGTA.**—This Station is an unattended Crossing Station, for which Location Boards are provided; these boards will be equipped with a White light at night, and the District Superintendent will arrange for the lamps to be lit.

The Points in the Main Line at Each end of Wyelangta are rodded to a Derail in the Siding and secured by Staff Locks.

## W. AND S.W. SECTIONS.

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**4. McDevitt's Siding.**—When it is necessary to place trucks at McDevitt Brothers' Siding or to remove them from there, an engine must be sent specially from Beech Forest, and the Driver must be in possession of a Section Order and a Master Key. Shunting at this Siding with Mixed or Ordinary Goods trains is prohibited.

**5. (a) Beech Forest.**—At Beech Forest Station, there is a Reversing Loop at the Down end, and the following instructions must be observed in connection with the crossing of trains:—

(b) The first train to arrive must, after the platform work has been completed, be run round the Reversing Loop, and return on to the same Road as that on which it arrived. The Station-master or person in charge must see that an employe is available to move the Points for this purpose. After the train has been brought to a stand, and it is seen that the Line on which the second train will arrive is quite clear, the necessary Fixed Signal may be exhibited to admit the second train to the Station.

(c) The Fixed Signal must not be exhibited to admit a train to the Station whilst a train is being run round the Loop.

(d) The Loop must be regarded as a Running Line in the Station Yard, and must be kept clear for trains to cross. This order does not, however, prohibit it from being used for shunting purposes, but vehicles must not be kept standing on it after shunting operations have been completed.

(e) The train from and to Colac should arrive on, and depart from, No. 1 Road, and the train from and to Crowes should arrive on, and depart from, No. 2 Road. Trains to be placed so that passengers can easily join them. Each train must carry a proper Destination Board.

(f) Passengers must not be conveyed in any train while it is travelling round the Loop.

(g) The speed of any train round the Loop must not exceed a rate of **10** miles per hour.

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### CURDIE, LIME COMPANY'S SIDING.

The Curdie's River Lime Company's Private Siding leads off the Goods Siding at Curdie. It is open for inwards and outwards goods in truck loads, account the Lime Company.

Engines are not permitted to run on the Private Siding, and trucks for the Company are only to be placed on and cleared from the Public Loop Siding.

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### PENSURST.

**1.** The normal position of the Home Signal controlling the exit from the Ballast Pits Line is Stop, and it must be securely locked in that position, except when it requires to be placed to the Proceed position. The Station-master, Penshurst, must arrange so that two engines will not be on the Line Leading to the Ballast Pits at one and the same time.

## SPECIAL INSTRUCTIONS.

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**2. Penshurst Ballast Pits Line.**—(a) This Line leads off the Main Line at the Up end of the Penshurst Station Yard.

The Points in the Main Line are rodded to a Derail in the Ballast Pits Line and secured by an Annett Lock, with a duplicate lock on Up and Down Home Signals at Penshurst.

(b) The classes of engines allowed to run over this Line are old "R" lighter classes.

(c) There are two Sidings at the Ballast Pits; the one on the Eastern side is 850 feet in length, and the other 700 feet in length, with accommodation for 34 and 28 vehicles respectively.

(d) Subject to the Instructions shown on pages 396-399, trains may be pushed on the Ballast Pit Line.

(e) Between Penshurst and the Ballast Pits, the rate of speed must not exceed 5 miles per hour, maximum number of vehicles 10.

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### RIPON BALLAST SIDING.

**1.** When the quarry at Ripon Ballast Siding is being worked, trains must, as far as is reasonably practicable, work there during daylight only, but if it be absolutely necessary for trucks to be put off or taken on during darkness, a train must be sent from Ararat, and be accompanied by a competent Shunter, who has had experience in working at the Siding, to assist the Guard.

**2.** Before trucks are removed from the Siding to the Main Line they must be coupled up to the Brake Van, and when the engine is not attached a sufficient number of Hand Brakes must be fastened down to prevent the possibility of any of the vehicles running out of the Siding.

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### NEW LANGI LOGAN SIDING.

**1.** The New Langi Logan Gold Mine Company's Siding is situate at 137 miles 64 chains, between Langi Logan and Maroona. The Siding is connected to the Main Line at each end; and a Dead-end Siding, the Points of which are facing in the Up direction, leads off the Loop. The Points in the Main Line and the Catch Points in the Siding at each end of the Loop are rodded together and worked by a lever, and the Points in the Main Line are secured by Staff Locks.

**2.** A Notice Board is erected in the Dead-end Siding, at a distance of about 600ft. from the Loop Facing Points. The lettering on the Board is as under:—**ENGINES MUST NOT PASS THIS POINT.**

Drivers, Guards, and Shunters are hereby instructed to see that this Notice is obeyed.

**3.** Trucks put off at the Siding must be placed at the Railway Boundary, and those to be taken on cleared from the same place.

## W. AND S.W. SECTIONS.

### WILLAURA.

**Special Locking of Points and Signal Levers.**—The following are the arrangements with regard to the locking of the Points and the Signal Levers at Willaura:—

**1.** The Facing Points in the Main Line at each end of the Yard and the points in the Main Line leading to the Carriage Dock are secured by Plunger Locks.

**2.** The Points in the Main Line and the Catch Points in the Grain Siding at the extreme Down end of the Yard are rodded together and worked by a lever. The Main Line Points are secured by an Annett Lock. The intermediate Crossover Points between the Main Line and the Grain Siding are rodded together and worked by a lever. The Points in the Main Line are secured by an Annett Lock.

A Down (Departure) Home Signal is in use at the Down end of the platform, clear of the Down Facing Points leading to the Grain Siding. The Points in the Up end of the Grain Siding are rodded to a derail in the Grain Siding, and secured by an Annett Lock. A duplicate Annett Lock is provided on the Signal Lever on the platform.

**3.** An Annett Lock is provided on each Home Signal Lever, and an Annett Key is necessary to enable these Signals and the Points referred to in clause 2 to be worked. The Key must, when not required, be kept in the Station-master's office in a place known to all concerned. It must be used only by the Signalman in regard to the working of the Signals, but he may hand it over to the Guard or Shunter to release the Points for Shunting operations. As soon as these have been completed the Key must be returned to the Signalman.

### DUNKELD—STRATHKELLAR—HAMILTON.

**1.** (a) A Composite Electric Staff is provided for the Section Dunkeld—Hamilton, and, when specially authorised, Strathkellar will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

(b) Strathkellar is connected by telephone with Hamilton, but not with Dunkeld, and the necessary messages in connection with Train Signalling, etc., must, therefore, be transmitted via Hamilton.

**2. MASTER KEY.**—A Master Key, lettered Dunkeld-Hamilton, is in use to open Staff-locked Points at either Moutajup or Strathkellar, when a train travelling on a portion of the Composite Staff marked "Ticket" requires to work at either of those Stations. This Key must be worked in accordance with the instructions contained on pages 554-557, excepting that the reference to "endorsing Staff Ticket" will not apply to this Section. The Master Key must be collected from the Driver by the Signalman at Hamilton immediately on arrival of the train, and (if it be not required for an Up train) returned the same day, or in time for use the next day, to the Station-master, Dunkeld, as a "Value" parcel. The Station-master, Hamilton, must see that this is done.

Except when required for use in accordance with these instructions, the Master Key must be secured in the Station-master's safe at Dunkeld.

## SPECIAL INSTRUCTIONS.

**HORSHAM TO HAMILTON AND HAMILTON TO PORTLAND NORTH.**

1. (a) On the abovementioned Line traffic is worked under the Rules for Working Single Lines by Train Section Orders, as shown on pages 562-579.

(b) The Divisions and Crossing Stations are as specified hereunder:—

DIVISIONS.	CROSSING STATIONS.
Horsham—Balmoral	East Natimuk, Noradjuha, Toolondo and Kanagulk
Balmoral—Hamilton	Vasey and Cavendish
Branxholme—Portland North	Condah and Heywood

(c) MASTER KEYS FOR SPECIAL LOCKS.—The Points in the Main Line at each end of Noradjuha and all intermediate non-crossing stations are rodded to a Derail in the Siding, and secured by Staff Locks; the Driver of each train running on the Line must carry a Master Key for the purpose of opening Staff Locked Points. Master Keys are provided as shown hereunder:—

HORSHAM.—Three lettered, “Horsham-Balmoral,” and numbered 1, 2, and 3.

BALMORAL.—Two lettered, “Balmoral-Horsham,” and numbered 1 and 2.

BALMORAL.—Two lettered, “Balmoral-Hamilton,” and numbered 1 and 2.

HAMILTON.—Two lettered, “Hamilton-Balmoral,” and numbered 1 and 2.

BRANXHOLME.—Two lettered, “Branxholme-Portland North,” and numbered 1 and 2.

PORTLAND NORTH.—Two lettered, “Portland North-Branxholme,” and numbered 1 and 2.

**Additional Instructions for Working Trains to or from Horsham and the Goroke Line.**

2. (a) EAST NATIMUK.—A man will be in charge of East Natimuk whilst traffic is running.

(i) For Down trains to the Goroke Line Horsham issues the Section Orders, which must be collected and cancelled by the Signalman at East Natimuk, and Staff or Ticket issued for Section East Natimuk—Natimuk. The arrival of the train must be sent by telegraphic or telephonic message to Horsham.

## W. AND S.W. SECTIONS.

(b) NATIMUK TO HORSHAM.—The following procedure must be adopted in respect of trains from Natimuk to Horsham:—

- (i) If the Station-master, East Natimuk, has not received advice of a train having left Horsham he must forward the following message to Horsham:—

EAST NATIMUK.
<i>To Station-master, Horsham.</i>
The.....train from Goroke Line is approaching my Station, and I require authority to issue a Section Order for it to proceed from East Natimuk to Horsham.
The last Down train which arrived here was.....at.....
The last Up train left here at.....
Signed.....
Time.....
Date.....

- (ii.) If the Station-master, Horsham, has not issued Section Orders for a train to proceed from Horsham towards East Natimuk since the last Down train mentioned by East Natimuk, and the last Up train has arrived complete, he will forward the following message to the Signaller at East Natimuk:—

HORSHAM.
<i>Station-master, East Natimuk.</i>
Your application for authority to issue a Section Order for the .....train from Goroke Line.
The last train for which Section Orders were issued to proceed towards East Natimuk left here at.....
The last Up train arrived here at.....
I authorise you to issue a Section Order* for the .....train from Goroke Line to proceed to this Station, and I will not permit any train or engine to depart for East Natimuk until..... train arrives here.
Signed.....S.M.
Time.....
Date.....
* Section Orders "A" must be used by East Natimuk.

(c) On arrival of the train at Horsham the Section Orders must be collected, and a message stating that the train has arrived complete must be sent to the Signaller at East Natimuk, who must not permit a train from the Hamilton Line to follow the Goroke Line train until such message is received.

### SPECIAL INSTRUCTIONS.

(d) The Signalman at East Natimuk must be advised by the Control Officers at Horsham and Balmoral of all movements of trains in the Division.

(e) For the running of Nos. 16 Up and 27 Down between Balmoral and East Natimuk on Mondays and Wednesdays, S.M., Balmoral, must issue Section Orders in accordance with Rule 10. The Section Orders must be collected from the Driver and Guard of No. 16 Up by the Signalman at East Natimuk, the orders for the Up journey must be cancelled in accordance with Rule 9, and the orders for No. 27 on the Down journey retained by the Signalman. Prior to No. 27 leaving East Natimuk the Signalman there must communicate with the Control Officer at Balmoral and ascertain whether the Section Order issued will still stand or whether any alteration is necessary, the Signalman in this case acting for the Guard as laid down in Rules 9 and 10.

In the event of it being necessary to cancel the original Order and issue an amended Crossing Order, the Signalman must, in addition to handing the order to the Driver and Guard, verbally inform them of the altered arrangements.

**3. Additional Instructions for working Local trains to or from Heywood and Portland North.**

(a) **HEYWOOD.**—A man will be in charge at Heywood whilst this traffic is running.

(i.) For Up Local trains to Heywood, Portland North issues Section Orders, which must be collected and cancelled by the Signalman at Heywood and Staff or Ticket issued for Section Heywood—Mt. Gambier. The arrival of the train must be sent by telegraphic or telephonic message to Portland North.

(b) **HEYWOOD AND PORTLAND NORTH.**—The following procedure must be adopted in respect of trains from Heywood to Portland North:—

(i.) If the Signalman, Heywood, has not received advice of a train having left Portland North, he must forward the following message to Portland North:—

HEYWOOD.

*Station-master, Portland North.*

The..... train from Mt. Gambier Line is approaching my Station, and I require authority to issue a Section Order for it to Proceed from Heywood to Portland North.

The last Up train which arrived here was.....  
at.....

The last Down train left here at.....

Signed.....

Time.....

Date.....

## W. AND S.W. SECTIONS.

- (ii.) If the Station-master, Portland North, has not issued Section Orders for a train to proceed from Portland North towards Heywood since the last Up train mentioned by Heywood, and the last Down train has arrived complete, he will forward the following message to the Signalman at Heywood:—

### PORTLAND NORTH.

*Station-master, Heywood.*

Your application for authority to issue a Section Order for the .....train from Mt. Gambier Line.

The last train for which Section Orders were issued to proceed towards Heywood left here at.....

The last Down train arrived here at.....

I authorise you to issue a Section Order\* for the ..... train from Mt. Gambier Line to proceed to this Station, and I will not permit any train or engine to depart for Heywood until ..... train arrives here.

Signed.....S.M.

Time.....

Date.....

\*Section Orders "A" to be used by Heywood.

(c) On arrival of the train at Portland North the Section Orders must be collected and dealt with as instructed in Rule 8, page 569, and a message stating that the train has arrived must be sent to the Signalman at Heywood, who must not permit a train from the Hamilton Line to follow the Mt. Gambier Line train until such message is received.

(d) The Signalman at Heywood must be advised by the Control Officers at Branxholme and Portland North of all movements of trains in the Division.

**4.** All messages must be written in pen and ink on the proper Telegraph Forms. Messages sent and received by telephone must be dealt with as laid down in the instruction regarding Telephone Communication contained on page 141-142.

As soon as the arrival of the Down train has been sent and received, the copies of messages exchanged must be cancelled by writing the word "Cancelled," with time, date and signature, and must be filed and forwarded each week to the Block and Signal Inspector for checking.

### HAMILTON.

**1.** (a) An auxiliary Signal-box with thirty levers is provided at the Up (the Maroona) end of the yard on the platform side of the Lines.

(b) The levers in the Auxiliary Frame are cross-locked from the Signal box Down end of yard. All Points and Crossings at the Up end of the Yard, with the exception of the Cross-over between No. 1 and No.



## SPECIAL INSTRUCTIONS.

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2 Roads nearest to the Up end of platform, the Cross-over between No. 2 and No. 3 Roads, and the Catch Points in No. 2 Road are worked from the Auxiliary Frame. The employe appointed to work the Frame must see that the Main Line, No. 1A Road and No. 1 Road are left clear after each shunting operation is finished, and so inform the Signaller in the Signal-box. A Hand-signalling Kit must be kept at the Auxiliary Box.

**2. British Imperial Oil Company's Siding.** — Siding "A," at the Up end of Hamilton Yard, has been extended by 50 feet for the British Imperial Oil Company.

A fixed Arm with hose attachment, for the purpose of discharging oil from trucks, is fixed near Siding, and Siding holders must arrange to have the hose placed and secured by padlock to standard clearance when not actually in use.

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### PORTLAND NORTH.

When there is only one engine in steam at a time on the Staff Sections, Heywood—Portland North, and Portland North—Portland, the Up Home Signal at Portland North may be left at Proceed. When, however, there are two or more engines in steam at the same time on the Sections named, a competent employe must be sent to Portland North to work the Signals at that Station in accordance with the Regulations. The Station-master, Portland, to arrange.

All engines must be worked to and from the Engine Shed Road and the Running Line under the personal supervision and authority of the Officer in charge of Staff working at Portland North, who will be responsible for the security of the Points.

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### PORTLAND - PORTLAND NORTH.

To facilitate the working of the local Goods train between Portland and Portland North Grain Siding, when the Electric Staff System is in operation on this Section, a Staff may be obtained under Rule 18, at Portland. The Staff must be replaced in the Instrument each trip on return of the Goods train to Portland; a competent Staff worker must be in attendance at the Siding to ascertain that the train has arrived complete.

Permission is also given for Portland North to withdraw a Staff under Rule 18, after the Engine of the last Down Goods has returned from Portland, and the Signaller at Portland may then go off duty.

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### PORTLAND FREEZING WORKS, NEAR PORTLAND NORTH.

A Warning Notice Board at the entrance to the Freezing Works Siding has the following Notice painted thereon:—Engines must not go past the Slaughter House in Siding. The Slaughter House is at the Down end of the Siding.

Drivers, Guards and Shunters are hereby instructed to see that this notice is obeyed.

## W. AND S.W. SECTIONS.

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### PORTLAND.—OLD PIER.

Engines are not allowed to run on to the Old Pier at Portland, and a Notice Board, as under, is provided at the rear of the Goods Sheds:—  
**ENGINES ARE NOT PERMITTED TO PASS THIS POINT.**

Drivers, Guards and Shunters are hereby instructed to see that this notice is obeyed.

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### HEYWOOD—MOUNT GAMBIER LINE.

(Dartmoor.)

For the purpose of facilitating clearing of loading from Dartmoor on days other than those on which the Mixed train runs between Heywood and Mount Gambier, Dartmoor is open as a Train Staff and Telephone Station, subject to the Special Instructions shown hereunder:—

The Staff Sections are Heywood—Dartmoor, and Dartmoor—Mount Gambier.

**1.** The Travelling Station-master on the Mixed train and the Guard of the Special train run between Heywood and Dartmoor will be responsible for the Staff Working on arrival of their respective trains at Dartmoor, and the Station-master, Heywood, will be responsible for a general supervision of the Train Staff and Master Key arrangements between Heywood and Mount Gambier.

**2.** (a) When arrangements have been made for a Special train to run between Heywood and Dartmoor on days on which the Mixed train does not run, No. 1 or 3 Down, as the case may be, will carry the Train Staff Ticket between Heywood and Dartmoor, and the Travelling Station-master will require to have possession of the Master Key. On arrival at Dartmoor, the Travelling Station-master will place the Down Home Signal to the Stop position, collect the Staff Ticket and cancel it, attaching it to the page of the Train Register Book in use for that day; he will then hand the Driver the Staff for the Section, Dartmoor—Mount Gambier, and place the Master Key in the Box provided for that purpose in the office at Dartmoor. When the train is ready to depart he must—

- (i.) Send the "Acre" message to Heywood, adding the words, "Master Key locked in Box";
- (ii.) Place the Up Home Signal to Stop and the Down Signal to "Proceed" and secure them in that position by the carriage lock provided.

## SPECIAL INSTRUCTIONS.

(b) When receiving the "Acre" message, the Station-master, Heywood, must, if no mention is made of the Master Key, question the Travelling Station-master in regard to it.

**3.** (a) The Special train will then carry the Train Staff between Heywood and Dartmoor. On arrival at Dartmoor, the Guard must place the Down Home Signal to the Stop position, and immediately collect the Train Staff from the Driver and place it in the Staff Ticket Box, Heywood—Dartmoor. When the train is quite ready to depart on the return journey, the Guard must—

- (i.) Open the Staff Ticket Box and write out a Staff Ticket, writing across the face of it "Master Key," returning the Book to the Box;
- (ii.) Unlock the Box containing the Master Key and hand the Ticket and Master Key to the Driver, at the same time showing him the Train Staff;
- (iii.) Return the Staff to the office and lock it in the Master Key Box, and send the message "Apix." Train carrying Master Key to the Station-master, Heywood;
- (iv.) Place both Home Signals to "Proceed," and secure them in that position by the carriage locks on the Quadrant Levers.

(b) When receiving the "Apix" message the Station-master, Heywood, must, if no mention is made of the Master Key, question the Guard in regard to it.

**4.** On arrival of No. 2, 4 or 6 Up (as the case may be) at Dartmoor, the Travelling Station-master must obtain the Staff for the Section, Mount Gambier—Dartmoor, from the Driver, and place it in the Staff Ticket Box for that Section, he must then call Heywood on the telephone and receive the "Acre" message for the previous train, with the words "With Master Key" added. After receiving this message, he must unlock the Master Key Box, obtain and hand the Staff for the Section, Heywood—Dartmoor to the Driver.

**5.** Guards will be responsible for the working of the plungers while trains are working at Dartmoor, and the Driver must not pass through the Points in the trailing direction from any road unless he has received permission from the Guard to do so. Guard must replace plungers when the shunting is completed and train is on No. 1 road ready to depart.

No shunting must be permitted outside the Home Signal unless the Staff for the Section about to be obstructed is at the Station.

**6.** The Staff Boxes are placed in the office at Dartmoor, and a box lettered "Master Key" is also provided; this box is secured by a Yale lock. The Travelling Station-master, Mount Gambier Line, will be in possession of one Key for this box, and a duplicate key must be kept by Station-master, Heywood; the latter Officer will be responsible for handing the Guard of the Special train this duplicate key, before the train leaves Heywood, and for obtaining it from the Guard on his return. called upon to perform at Dartmoor.

**7.** The Station-master, Heywood, must, in each instance, satisfy himself that the Guards thoroughly understand the duties they will be

## N.W. AND S.W. SECTIONS.

**8.** The Travelling Station-master or the Guard must insert the arrival and departure of trains at Dartmoor in the Train Register Book, and record the time "Apix" and "Acre" messages were sent and received, and whether train carried "Master Key."

All messages must be written out on the proper Telegraph Forms and attached to the Train Register Book.

**9.** The Caretaker, Dartmoor, must arrange that the Travelling Station-master and Guards have access to the office to comply with these instructions, and must also forward the Train Register Book for the previous week to the Block and Signal Inspector, Flinders-street, by No. 4 Up on Mondays.

**10.** In the event of the telephone between Dartmoor and Heywood failing, sub-clause (c) of clause 2, page 547, and sub-clause (h) of clause 8, page 556, must be complied with. The Travelling Station-master, Mount Gambier, must be in possession of a "Notice of a Train Ahead" Book. Should the Master Key be lost, sub-clause (i), page 556, must be complied with.

**11.** Should a Train Staff be lost, the Station-master, Heywood, must arrange for Pilot-working being brought into force, and for placing a man in charge at Dartmoor until Pilot-working is cancelled, or withdrawn, and ordinary working resumed.

The same course must be adopted in the event of an obstruction blocking the Line, and it being necessary to work trains up to the point of obstruction on each side in accordance with the Rules.

**12.** In the event of a train or engine becoming disabled at Dartmoor or in the Section between Heywood and Dartmoor, the Station-master, Heywood, must be communicated with in accordance with the Rules, and he will be responsible for making all the necessary arrangements.

**13.** In the event of a train or engine becoming disabled, and the Travelling Station-master is accompanying such train, he may, if necessary, after seeing that the train crew have complied with the Rules, proceed to Dartmoor and take charge of that Station.

**14.** Should it be necessary at any time for trains to cross each other at Dartmoor, a man must, unless instructions are issued to the contrary, be placed in charge at that Station.

## MOUNT GAMBIER JUNCTION.

### Designation Board.

A triangular Designation Board has been erected at the end of the third rail, 227 yards beyond the last Points in the direction of Adelaide, exhibiting by day a lattice triangle 3 feet on sides, and 9 feet high situated on Driver's left hand. At night a six inch triangular light is shown in the centre of this Board.

No broad gauge vehicle must shunt beyond the point where this Board is fixed.

## SPECIAL INSTRUCTIONS.

### GRAMPIANS LINE.

**1.** This Line is worked under the Train Staff and Ticket System; unless instructions are issued to the contrary, the Driver of every train or engine travelling on the Line must have possession of the Train Staff; see clause 15, page 559.

**2.** When it is necessary for a train to run on the Line, the Station-master, Stawell, must give written notice to the Ganger in charge 7 days prior to the day on which the train will run in the case of a Passenger train, and 3 days in the case of a Goods train.

**3.** The Ganger must go over the length of Line beforehand as far as the train will run and satisfy himself that it is in proper order, and that the Points in the Running Line at any Station or Siding at which the train will call or pass are in their right position and properly secured.

**4.** (a). When it is necessary to load trucks with gravel or firewood whilst they are standing on the Running Line, the Station-master, Stawell, must arrange for the empty trucks to be placed and cleared during the hours of daylight on the same day.

(i.) Trucks must not be placed on the Running Line to load with gravel or firewood when the Line is required for other traffic.

(ii.) The empty trucks must be pushed from Stawell to the loading point. The instructions with regard to pushing trains, pages 396-399, must be observed.

(iii.) The trucks must not be allowed to stand on a falling gradient, and the Guard or Shunter-in-charge of the train, before detaching the engine for the return journey, must see that the Hand Brakes on the trucks are fastened down, and that one of the wheels of the leading vehicle is secured to the rail by means of a chain and padlock. The Station-master or person in charge at Stawell to see that the chain and padlock are duly provided.

(b) Whenever vehicles are left on the Grampians Line in accordance with the above clause (a), the Guard or Shunter-in-charge of the train, on return of the engine to Stawell, must notify the Signalman at "B" Box, in writing, the number of vehicles, and the location at which they are left, and the latter must insert an entry across the figure line of Train Register Book as follows:—

No.....

.....vehicles standing on Grampians Line, in the vicinity of mileage..... Time..... Date.....

(c) He must also place the special sleeves provided for the purpose on the levers of the Signals leading to the Grampians Line. The special sleeves have a plate attached with the words "Trucks standing on Grampians Line" in black letters on a red ground.

(i.) In the event of the vehicles not being removed before the Signalman who made the entry, going off duty, he must draw the attention of the Signalman by whom he is relieved to the entry, and the fact of the sleeves being on levers.

## N.W. AND S.W. SECTIONS.

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- (ii.) While trucks are standing on the Grampians Line the Signalman must not hand the Train Staff to the Driver of any train or engine to run on that Line, except for the purpose of removing or replacing the trucks, and when handing over the Staff he must also hand the Driver a written order, as shown hereunder, and obtain the Driver's signature on carbon copy held by himself

### COPY OF ORDER.

To Driver of Grampians Pilot.

Date..... Time....

There are trucks standing on Grampians Line, and you must ascertain from Guard or Shunter-in-charge of your train their exact location.

.....  
Signalman

- (iii.) The crew of the train that clears the loaded trucks should be the same crew that placed the empties, but if this be not reasonably practicable, then either the same Driver or the same Guard or the same Shunter must be with the train. A good look-out must be kept when approaching the locality at which the trucks were left.
- (d) When all trucks are removed, the Guard or Shunter must so inform the Signalman "B" Box, in writing, and the Signalman must enter the particulars across the figure line of Train Register Book; the sleeves may then be taken off levers.
- 5.** (a) Unless special instructions are issued to the contrary, trucks fitted with pipes not operating Brake Blocks must not be allowed to run on this Line.
- (b) The speed of any train over the Line must not exceed a rate of 10 miles per hour, either when the engine is drawing the train or when the engine is pushing.
- 6.** The keys of the Crossing Gate at the Junction and the keys of the Points at Fyans' Creek are attached to the Train Staff.
- 7.** The Stawell Pressed Brick Co.'s Siding leads off the Grampians Line at a point about half a mile on the Down side of Stawell Station.

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### GOYURA BALLAST SIDING.

This Siding leads off the Shed Road at Goyura and trucks are taken to and from the Ballast Siding by means of horse traction. Before any truck which has been in the Ballast Siding is taken on the Driver must examine it and satisfy himself that it is fit to run.

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## North-Eastern District.

### SOMERTON.

1. Except special instructions are issued to the contrary, Somerton must be worked by an authorised Up Goods train during the hours of daylight. In the event of a Goods train being required to work at Somerton during darkness, the Station-master Broadmeadows must arrange with the Caretaker to have the Signal lighted.

2. The Siding is connected to the Up Main Line. The Points in the Main Line and the Safety Points in the Siding are rodded together and worked by one lever. An Interlocking Frame, with two levers, is situate near the Points. The lever painted black works the Points, and the lever painted red works the Up Home Signal.

The lever which works the Up Home Signal from the Interlocking Frame is normally secured in the Proceed position by an Annett Lock, the Key of which, when not in use, is in charge of the Station-master, Craigieburn, who is responsible for its safe custody.

3. Quadrants are also provided on the Up and Down Platforms, from which the respective Home Signals may be placed to the Stop position for the protection of trains; these Quadrants are fitted with carriage locks, securing the levers in the pulled over position.

4. The Guard of a train which requires to work at Somerton Siding must obtain the Annett Key from the Station-master, Craigieburn, who must instruct the Guard in its use, and telephone to Broadmeadows that the Guard (naming the train) has received the Key.

5. When the train arrives at Somerton, the Guard must immediately unlock the Signal lever at the Interlocking Frame and place the Signal to the Stop position. The Point lever will then be free to work as required. When the train is quite ready to proceed to its journey the Guard must place the Point lever in the normal position, place the Home Signal to Proceed, and lock it in that position by means of the Annett Key. The Guard must be careful to see that the Home Signal goes to Stop or to Proceed, according to the position of the Lever.

6. The Annett Key must be taken on to Broadmeadows, and be delivered by the Guard to the Signaller, who must arrange for it to be waybilled to Craigieburn by the first available stopping train. The Signaller at Broadmeadows will be responsible for the safety of the key while it is in his custody.

7. The Grade in the Station Yard at Somerton is a falling one (1 in 112), and when the engine is detached for the purpose of putting off, or taking on vehicles, the Guard must keep as many Hand Brakes on as may be necessary to prevent the train from moving during the time the engine is detached.

8. Trains must not work at Somerton during Foggy weather, nor when the Block Instruments are out of order.

## NORTH-EASTERN SECTION.

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### CRAIGIEBURN.

**1.** On account of the gradient at Craigieburn, Up Goods trains with heavy loads must not be shunted to give precedence to Passenger or Mixed trains. If a Goods train cannot reach Broadmeadows in time to avoid delaying a Passenger or Mixed train, it must be shunted at Donnybrook.

**2. Level Crossing.**— The Gates at Down end of the Craigieburn Station do not extend across the Siding. When any train is to enter or leave the Siding at Down end or when shunting operations are to be performed on the Siding, the Signalman must see that the Guard or some other employe is exhibiting a Red Hand Signal on the West side of the Siding, in order to control vehicular traffic.

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### WALLAN.

**Refuge Siding.**—A Set-back Refuge Siding leads from the Down Main Line at the Up end of the Station. The length of the Siding, from the Buffer Stops to the Derail, is 1290 feet.

**Gravitation Yards.**—When the Gravitation Yard at Wallan is open for traffic, special instructions will be issued in respect of the trains that will be shunted there for marshalling purposes.

Drivers and Guards of trains are to exercise extreme caution when setting back towards the Dead-end.

Notice Boards are erected at each end of the Weighbridge Loop, with the following notice painted thereon:—**ENGINES MUST NOT PASS OVER WEIGHBRIDGE.**

Drivers, Guards and Shunters are hereby instructed to see that this notice is obeyed.

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### LIGHTWOOD.

**1. (a)** Lightwood Siding, situate between Wallan and Heathcote Junction, is connected to the Up Main Line. The levers working the Points and Signals are interlocked and worked from a cabin, the key of which is in charge of the Gatekeeper at the adjacent Level Crossing.

**(b)** The lever which works the Up Home Signal from the Interlocking Frame is normally secured in the Proceed position by an Annett Lock, the key of which, when not in use, is in possession of the Officer-in-charge, Wandong, who is responsible for its safe custody.

**2. (a)** The Guard of a train which requires to work at Lightwood must obtain the Annett Key from the Officer-in-charge, at Wandong, who must instruct the Guard in its use, and telephone to Wallan that the Guard (naming the train) has received the key.

**(b)** When the train arrives at Lightwood the Guard must immediately unlock the Signal Lever and place the signal at the Stop position, the Point Lever will then be free to work as required. When the train is quite ready to proceed on its journey the Guard must place the Point



## SPECIAL INSTRUCTIONS.

Lever to its normal position, place the Home Signal to Proceed, and lock it in that position by means of the Annett Key. The Guard must be careful to see that the Home Signal goes to Stop or Proceed, according to the position of the lever.

(c) The Annett Key must be taken on to Wallan and be delivered by the Guard to the Signalman, who must arrange for it to be waybilled to Wandong by the first available stopping train. The Signalman at Wallan will be responsible for the safety of the key while it is in his custody.

**3.** On the Down journey trucks are to be taken on to Wandong and returned during the hours of daylight by the Goods authorised to work at this Siding.

**4.** (a) Trains must work at this place during the hours of daylight only, and unless instructions are issued to the contrary the Signal Lamp will not be lighted at night.

(b) Trains must not work at Lightwood during **Foggy** weather, nor when the Block Instruments are out of order.

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### KILMORE EAST.

A Set-back Refuge Siding leads off the Down Line at the Up end of the Station. The length of the Siding in the clear is 1450 feet.

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### BROADFORD AND McDOUGALL.

**1.** (a) McDougall Siding is situate  $1\frac{1}{4}$  miles on the Down side of Broadford, and is connected only to the Down Main Line. There are no Fixed Signals.

(b) Trucks on Up trains for the Siding must be left at Broadford.

**2.** The Points are secured by an Annett Lock, the Key of which, when not required to release the Points at McDougall, is kept in a duplicate Lock on the lever of the Down Starting Signal at Broadford. In the absence of the Key the Signal is locked at Stop.

**3.** The Siding is only worked by an authorised Down Goods train, or by a special trip from Broadford as may be arranged; see clause 7. The Guard must be assisted by a Porter from Broadford, and the latter will be responsible for the safe custody of the Annett Key and for testing the Special Lock in accordance with clause 4, pages 148-9, when shunting is completed.

**4.** The Siding is situate on an incline, and when a train is to work there care must be taken that, before uncoupling, in addition to screwing the Van-brake tightly down, all the Truck-brakes are fastened down to prevent the possibility of the train or any of the vehicles moving away.

**5.** The Driver of any Down train which has to shunt at McDougall may, after receiving verbal instructions from the Station-master, Broadford, pass the Down Starting Signal at Broadford when it is at the Stop position, and, provided the Shunting Porter, with the Annett Key, is riding on the engine, may proceed on the journey.

## NORTH EASTERN SECTION.

6. (a) The Signalman, Broadford, must not authorise the Starting Signal to be passed at Stop unless the **Is Line Clear?** signal has been accepted by Tallarook.

(b) During **Foggy** weather or in the event of any failure of the Block Instruments, no train must work at McDougall.

7. **Method of Working from Broadford when the Train is Required to Return to that Station.**— (a) Provided the "IS LINE CLEAR?" signal has not been accepted from Kilmore East for a Down train, arrangements may be made for a Goods train to run from Broadford to McDougall and return to Broadford on the Wrong Line.

(b) Before despatching the engine and Van (with or without trucks) to the Siding, the Signalman at Broadford must obtain permission from Tallarook in the regular way for the Down train to proceed, and before allowing the engine to proceed he must hand the Driver a "Wrong Line" Order to authorise the train to return from McDougall Siding to Broadford on the Down Line. When the engine departs from Broadford the "Departure Signal" must be sent and acknowledged, and the Signalman at Tallarook must be informed of the circumstances. On the return of the train from McDougall Siding, the Signalman at Broadford must, after having ascertained that the train has arrived complete and has collected the "Wrong Line" Order from the Driver, send the **Cancelling** signal to Tallarook. The Driver, when returning to Broadford on the Wrong Line, must stop the engine clear of Post 7 at Broadford until signalled forward by the Signalman.

(c) The attention of the Signalman at Broadford is directed to Regulation 244.

The "Wrong Line" Order must be cancelled and attached to the page of the Train Register Book containing the entries for the date it is used, and forwarded with the Book to the Block and Signal Inspector's Office.

(d) Subject to the instructions contained in pages 396 to 399 General Appendix permission is granted to push the train from McDougall Siding to Broadford. The number of vehicles to be pushed must not exceed 20.

(e) If the engine of the train which is to return to Broadford should fail, assistance must be obtained as follows:—

- (i.) Should the engine fail when in the Siding and the Main Line be clear, the Driver must hand the "Wrong Line" Order to the Guard, and also a written order stating that his engine is disabled in the Siding, that the Main Line is clear, and that he will not permit the engine to foul the Main Line until relief arrives. The Guard must then return to Broadford with the Orders and the Annett Key, and the Signalman after cancelling the "Wrong Line" Order will make all necessary arrangements for relief. Trains may, however, be worked through the Section in accordance with the Rules before relief is sent in provided the Signalman is in possession of both the "Wrong Line" Order and "Driver's Order," and also the Annett Key.

## SPECIAL INSTRUCTIONS.

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- (ii.) Should the engine fail on the Main Line or the Main Line is occupied by vehicles, the Driver must hand the "Wrong Line" Order to the Guard and instruct him to take it to the Signalman at Broadford and arrange for relief. The Signalman will cancel the "Wrong Line" order and arrange for relief in accordance with the Rules.
- (iii.) When proceeding for assistance in accordance with subsection (ii.) the Guard must place Detonators upon the Line in accordance with Regulation 239 and accompany the Relief engine to the disabled engine or vehicles.

### BROADFORD AND TALLAROOK.

The Driver of any Down Goods train which has trucks on for Tallarook must give 2-2 short sounds on the engine whistle when passing Broadford, and the Station-master or person in charge at Broadford must advise Tallarook of the signal that has been given. The Guard of the train must let the Driver know in good time whether there are trucks on for Tallarook.

### TALLAROOK—GOULBURN JUNCTION—SEYMOUR.

All traffic (Up and Down) between Tallarook, Goulburn Junction and Box "A" Seymour, is regulated by Special Instructions, which are issued in a special pamphlet, "C14/26." Employes concerned must, if not in possession of the pamphlet referred to, apply for a copy through their superior officer; see also page 129.

### DYSART.

#### (Situate on the Up Side of Goulburn Junction.)

1. The following instructions must be observed by the Signalmen and Trainmen, in connection with any train required to work at Dysart:—

- (i.) The Siding is connected to the Up Line only, and worked by an authorised Up Goods train during the hours of daylight;
- (ii.) The Points in the Main Line and the Safety Points in the Siding are rodded together and worked by a lever, and secured by an Annett Lock.
- (iii.) The operation of the Points from the normal position will place the Up Automatic Signal (E.3104), (which protects the Siding) to the Stop position.
- (iv.) The key of the Annett Lock is normally in the custody of the Signalman at Box "A," Seymour. The Guard of the train authorised to work at Dysart must obtain the Annett Key from the Signalman, who must instruct the Guard in its use, and telephone to Tallarook that the train (naming the train) shall work at Dysart, and that the Guard has received the Annett Key.

## NORTH-EASTERN SECTION.

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- (v.) When the train arrives at Dysart, the Guard must immediately unlock the Points, and the Point Lever will then be free to work as required. When the shunting is completed, the Guard must place the Point Lever in its normal position, and remove the Annett Key from the Lock.
- (vi.) The Annett Key must be taken on to Tallarook, and be delivered by the Guard to the Signaller, who must arrange for it to be waybilled to the Station-master, Seymour, by the first available stopping train, and the Station-master, Seymour, must immediately hand the key to the Signaller at Box "A."

The Signaller, Tallarook, will be responsible for the safety of the Key while it is in his possession.

**2. (a)** The Driver of any Up train on finding Automatic Signal E.3104, Dysart, at the Stop position, must, when proceeding in accordance with Regulation 74, see that the Points at Dysart are in their normal position for the train to pass over them.

(b) In the event of the Points being in the reverse position, the Driver must stop and arrange for them to be placed to normal, and should the Annett Key be in the lock, it must be removed and delivered to the Signaller at Tallarook.

(c) Drivers must, on arrival at their Depot, make a special report of all instances where the Points at Dysart are found to be in the reverse position.

### SEYMOUR.

**1. (a)** The East Platform Road at Seymour is an Up and Down Running Road, and in the event of it being necessary for vehicles to be left on it, the Shunter in charge of the operation must immediately inform the Signaller at "A" Box and "B" Box of the circumstance.

(b) During the hours between sunset and sunrise and in foggy weather, a Red Light must be placed on each end of any vehicle or number of vehicles so left.

(c) The vehicles must be properly secured by the Shunter by means of Hand Brakes or otherwise, so as to prevent their moving.

(d) When the Line is again clear, the Station-master, Yard Foreman, or Shunter in charge will be responsible for informing the Signaller.

**2. (a)** When it is intended to run a train or engine into one of the Goods Roads (Nos. 2 to 8 inclusive), the instructions with regard to shunting in Station Yards (see pages 185-188), must, as far as is reasonably practicable, be observed.

(b) The Shunter in charge of the operations must give the Signaller at the end of the Yard where the train will enter all necessary information, and the Signaller must, before admitting the train, obtain permission from the Signaller at the opposite end of the Yard.

(c) In the case of a Light Engine not in charge of a Shunter, the Fireman must act in the way laid down for the Shunter in the previous clause.

## SPECIAL INSTRUCTIONS.

(d) The Signaller at each Box ("A" and "B") must consult each other before using any of the Roads referred to in clause 2, so that they will not use the same Road, nor allow trains to enter the Goods Roads from opposite ends of the Yard, at one and the same time.

3. During the hours between sunset and sunrise and in foggy weather, when the Main Line near Post No. 2 is already occupied, no train or engine must be allowed to proceed in that direction until the Driver of such train or engine has been verbally instructed regarding the state of the Line ahead.

4. (a) The Signaller at Box "B" must not allow an engine into Loco. Road III. unless requested by a responsible Loco. Officer, nor then until the operation is properly protected.

(b) Engine-drivers when in Loco. Siding I. are warned to keep a good look-out for Engines coming through the cross-over direct from the Goods Yard; Drivers proceeding from the Goods Yard are similarly warned.

**5. Defence Department's Siding — Level Crossing at Victoria Street.**—The track leading to this Siding crosses Victoria-street at the rear of "B" Signal Box. Cattle grids are provided on each side of the Crossing.

A Notice Board, lettered "TRAINS MUST STOP HERE UNTIL DISC ON POST 10B IS AT PROCEED" applicable to trains leaving the Siding, is erected at the grid on Down side of Victoria-street. Unless instructions are issued to the contrary, the following precautions in respect of this Siding must be observed.

- (i.) The Siding must only be worked during daylight, and in all cases the engine must be accompanied by a Shunter who, before allowing it to cross Victoria-street, must precede the engine in order to see that pedestrians, animals and road vehicles are kept clear.
- (ii.) To avoid obstructing the Level Crossing, no engine or train must pass the Notice Board on the return journey unless the Disc applying from the Siding on Post "10B" is at Proceed.

6. The Shunter or other person in charge of shunting operations must inform the Signaller at the nearest Box, in every case, when a Road is left occupied or foul, and again when the Road is clear, and the Signaller so informed must advise the Signaller at the other end of the Yard. Before an engine is allowed to run through on a Goods Road to the other end of the Yard, the Shunter or other person in charge must obtain the Signaller's permission.

**7. Whistle Post Erected Near Signal Post No. 1 for Down Trains.**—A Whistle Post, as described in page 229, is erected near Post No. 1 Down Home Signal at Seymour, so that Drivers of Down trains will sound the engine whistle to warn Shunters working in the vicinity of "D" Siding.

The Driver of every Down train must sound his train whistle when approaching this Post, and repeat the whistle at intervals while travelling between Signal Posts Nos. 1 and 2.

## NORTH-EASTERN SECTION.

**SEYMOUR—BANK ENGINE INSTRUCTION.**

1. Any Down Goods train with a load exceeding that for a single engine may be assisted by an engine in the rear from Seymour towards Mangalore as far as the **Stop Board** at 63 miles, 50 chains.

2. To safeguard the operation an Annett Lock is fixed on the Interlocking Frame at "B" Box, and, during the absence of the Key from this Lock, the Signals leading to the Down Line, on Post No. 10, will be locked at the Stop position.

3. Before the train proceeds on its journey, the Signalman must withdraw the Annett Key from the Lock, and hand it to the Driver of the Bank engine when the engine is passing the Box. This will authorise the Driver of the Bank engine to assist the train as far as the Stop Board and to return on the **Wrong Line** as far as Post No. 12; the Driver must approach Post 12 cautiously. When the engine comes to a stand, the Driver must return the Annett Key to the Signalman, who must immediately replace it in the Lock.

4. To enable the Key to be withdrawn, the **Fixed Signal on Post No. 10** will require to be placed to the Stop position after the Train engine has passed it; the Driver of the Bank engine is hereby authorised to pass such Signal, for the purpose of assisting the train to the **Stop Board**, when verbally authorised by the Signalman.

5. The Signalman must be informed by the Yard Foreman or Leading Shunter when the Key will be required. The Guard of the train to be assisted must inform the Driver of the Train engine that there will be a Bank engine in the rear, and the Driver of the Bank engine when ready to start must give three whistles—one long, one short, and one long—and the Driver of the Train engine must not proceed until this intimation has been given, and the Whistle Signals referred to in Regulation 173 have been exchanged.

6. Should the Train engine become disabled while the train is being assisted, the Bank engine may, if able, push the train to Mangalore, and then return on the Right Line as soon as possible; in every such case the Bank Engine must be coupled to the train, and the Air Brake connected.

The Signalman at Mangalore must advise the Signalman at Seymour "B" Box of the circumstances, and until the Bank engine has returned, and the Annett Key has been delivered to the Signalman, no Down train or engine must be allowed to proceed in the direction of Mangalore.

7. (a). If the Bank engine fail when assisting, and it become necessary to divide the train, the Driver of the Train engine must return from Mangalore for the rear portion of the train on the **Wrong Line**, in accordance with Regulation 243, but, before the Train engine leaves with the first portion, the Driver of the Bank engine must endorse the Guard's Wrong Line Order, to the effect that he will not move the rear portion of the train. Detonators must be placed upon the Line about 200 yards from the front vehicle of the rear portion, in accordance with **Clause (d)** of Regulation 243.

## SPECIAL INSTRUCTIONS.

(b). As soon as possible after the failure, the Driver of the disabled Bank engine must hand the Annett Key to the Fireman, with instructions to take it back to "B" Box, and inform the Signaller there of the failure, whereupon relief must be arranged and a Relief engine allowed to enter the Section under the following arrangements:—

- (i.) The Driver of the Relief engine must be in possession of the Annett Key, which must be handed to him, in the presence of the Signaller, by the Fireman of the disabled engine. The Fireman must accompany the Relief engine back to the place where he left his own engine.
- (ii.) When he is in possession of the Annett Key, the Driver of the Relief engine may pass the Signal on Post No. 10, upon being instructed to do so by the Signaller.
- (iii.) The Driver of the Relief engine must retain possession of the Key until he returns with the Disabled engine up to Post No. 12.

(c) When proceeding to "B" Box for assistance, the Fireman of the disabled engine must place Detonators upon the Line, in accordance with Regulation 239. If the disabled Bank engine returns to Seymour before the train engine has returned for the rear portion of the train, the Guard must continue to protect the train in accordance with the Regulations.

8. Should the Bank engine fail when returning from the **Stop Board**, the Driver and Fireman must comply with paragraphs (b) and (c) of Clause 7.

9. When assisting from Seymour to the **Stop Board**, the Bank engine need not be coupled to the train.

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### GRAVELSIDE.

1. Gravelside Siding, situate between Seymour and Mangalore, is connected to the Down Main Line. The levers working the Points and Signals are interlocked, and are worked from a Box, to which entrance can be obtained by means of a carriage key.

2. The lever which works the Down Home Signal from the Interlocking Frame is normally secured in the "Proceed" position, by a "B" pattern Annett Lock, the key of which, when not in use, is in possession of the Officer-in-charge, Seymour, who is responsible for its safe custody.

3. The Guard of a train which requires to work at Gravelside must obtain the Annett Key from the Officer-in-charge at Seymour, who must instruct the Guard in its use, and telephone to Mangalore that the Guard (naming the train) has received the key.

4. When the train arrives at Gravelside the Guard must immediately unlock the Signal Lever and place the Signal at the "Stop" position, the Point Lever will then be free to work as required. When the train is quite ready to proceed on its journey the Guard must place the Point Lever to its normal position, place the Home Signal to

## NORTH EASTERN SECTION.

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Proceed, and lock it in that position by means of the Annett Key. The Guard must be careful to see that the Home Signal goes to Stop or Proceed, according to the position of the Lever.

**5.** The Annett Key must be taken on to Mangalore and be delivered by the Guard to the Signaller, who must arrange for it to be waybilled to Seymour by the first available stopping train. The Signaller at Mangalore will be responsible for the safety of the key while it is in his custody.

**6.** Trains must not work at Gravelside during foggy weather, nor when the Block Instruments are out of order.

**7.** Trains must work at this place during the hours of daylight only, and unless instructions are issued to the contrary, the Signal Lamp will not be lighted at night.

**8.** When it is opened as a Block Post, trains must be signalled in the way laid down in the special instruction in the Block Working Section of this Book, see page 702.

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### BENALLA.

**1. No. 2 Road.**— When vehicles are to be left on No. 2 Road at Benalla during the time that a Signaller is not in attendance, the Points leading from No. 2 Road towards Sidings "R" at Box "B," and the Points leading to Siding "A" at Box "A" must be set for these Sidings.

**2. (a)** During the hours between sunset and sunrise only one engine must be allowed to be on the Cattle Siding, or on the Line leading thereto, at one and the same time.

**(b)** During the hours of daylight, should it be necessary for a second engine to be sent into the Cattle Siding, the Signaller, "B" Box, must inform the Driver of the second engine that an engine is already in the Siding, and instruct him to proceed cautiously, and keep a good look-out. If a Shunter accompanies the engine, the Shunter also must be informed.

**3. Repair Shops Siding.**—Scotch Blocks are provided at the entrance to all the four roads leading to the Rolling Stock Repair Shop. They must be kept locked except when required to be open for the passage of engines or vehicles. The keys of the padlocks which secure the Blocks are in charge of the Signaller at "B" Box, from whom they must be obtained by the Shunter or other employe requiring them, and be returned to the Signaller immediately after use.

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### BENALLA—WINTON—GLENROWAN.

**1. (a)** A Composite Electric Staff is provided for the Section Benalla—Glenrowan, and, when specially authorised, Winton will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

**(b)** Fixed Signals are not provided at Winton; sub-clauses (a) and (b) of clause 5 of the Instructions referred to above must be observed.



## SPECIAL INSTRUCTIONS.

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(c) Winton is connected by telephone with Benalla, but not with Glenrowan, and the necessary messages in connection with Train Signalling, etc., must therefore be transmitted via Benalla.

### SHIRE COUNCIL SIDING, GLENROWAN.

The Benalla Shire Council's Goods Siding leads off the Goods Yard at Glenrowan. The Siding is about half a mile in length, and crosses three of the public roadways. A good look out must be kept, and the greatest care taken by employes conducting train movements, and the engine whistle must be used freely when necessary. The maximum rate of speed must not exceed 10 miles per hour over any part of the Siding.

There is a loop at Down end of the Siding. Trucks are to be hauled from the Goods Yard to the Council's metal bins. All trucks left standing at the Down end of Siding must have the Brakes securely fastened down. A Scotch Block is provided on the Station side of the Facing Points leading to the Loop. The Driver of every engine which enters the Siding must stop clear of the Scotch Block. The Guard must remove the Scotch Block, and again, at finish of the shunting, replace and lock it. The key of the padlock will be in charge of the Station-master at Glenrowan.

There is a Safety Catch Siding for traffic from the Siding at Glenrowan Station with the Points lying for the Catch. The Driver must not pass over the Facing Points in the Up journey until they are securely held for the passage of the train or engine.

### SPRINGHURST—CHILTERN.

#### (State Rivers Department's Siding.)

1. (a) The abovenamed Siding, situate at 165 miles 59 chains between Springhurst and Chiltern, consists of approximately 1½ mile of track; the track is unfenced, and the speed of any train thereon must not exceed a rate of 10 miles per hour. There is a Loop Siding, with accommodation for 10 QR Trucks, at a point 500 yards on Up side of the Rail Head of the Terminus.

(b) The Points in the Main Line at the entrance of the Siding are rodded to the Catch Blade in the Siding and secured by a miniature Staff Lock.

An Intermediate Electric Staff Instrument is provided in a cabin at the entrance to the Siding, and trains proceeding on to the Siding are worked in accordance with the Special Instructions for working an unattended Siding, Junction or Station equipped with an Intermediate Electric Staff Instrument; see pages 649-655.

A Railway Tricycle must be carried in the Van of a train working this Siding.

## NORTH-EASTERN SECTION.

### WODONGA

#### Third Rail, Live Stock Siding.

1. (a) The Points of the combined New South Wales (Narrow Gauge) and Victorian (Broad Gauge) Third Rail Live Stock Siding at Wodonga are connected together, and the three sets of Points are operated by a Throw-over Lever.

(b) A special Point Indicator is fitted to and works with the Points; the letters "N" (Narrow Gauge) or "B" (Broad Gauge), and indicating, respectively, the Line for which the Points are set, is displayed on the Point Indicator.

(c) The Siding is suitable for New South Wales or Victorian Rolling Stock, and the Points are normally set for the Narrow Gauge Road.

2. (a) Drivers of New South Wales or Victorian engines or trains working in this Siding must stop before reaching the Points, and must not pass over them until verbally instructed to do so by the Guard or Shunter in charge, and the Guard or Shunter will be held responsible for seeing that the Points are in the proper position for the movement.

(b) In the case of a Light Engine not accompanied by a Guard or Shunter, the Driver will be responsible for ascertaining that the Points are in the proper position for the movement of his engine.

3. After any movement in this Siding by Victorian engines or trains, the Shunter or Guard in charge, or the Driver in the case of a Light Engine, not accompanied by Guard or Shunter, must, before leaving the Siding, see that the Points are left in the normal position, and that the letter "N" is displayed by the Point Indicator.

### WODONGA—ALBURY

#### Coal Storage Sidings.

The Coal Storage Sidings are situated between Wodonga and Albury, three-quarters of a mile beyond the Down end of Wodonga Station.

The Sidings are on the east side of the New South Wales Line, and connected to the Victorian Line as well as to the New South Wales Line.

The entrance to the Sidings from the New South Wales Line is at the Down end, and the entrance from the Victorian Line at the Up end of the Sidings; a train passing from the Victorian Line to the Coal Storage Sidings will therefore cross the New South Wales Running Line.

Also two Sidings, forming separate Loop Sidings for each of the Running Lines, are situated alongside each Line, in the vicinity of the Storage Sidings. These Loops are provided to enable the respective engines to run around the train preparatory to backing the train into Storage Sidings.

## SPECIAL INSTRUCTIONS.

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The Points on the respective Running Lines at each end of these Loop Sidings are connected by rodding to Catch Points or Derails at each end of the Loop, and secured by Special Locks—Staff Locks being provided on the Victorian Line and Tablet Locks on New South Wales Line. The Points are worked from Ground Frames situated near the Main Line Points of the respective Sidings.

The Victorian Loop is approximately 750 feet, and the New South Wales Loop about 1000 feet in length.

As the Crossover between the Victorian Line and the Storge Sidings crosses the New South Wales Line, a Victorian train cannot enter the Storage Sidings whilst there is a train on the New South Wales Section, and in order to ensure this, the Points leading from the Victorian Line to the Storage Sidings are secured by a Tablet Lock as well as by a Staff Lock and worked from a Ground Frame situated near the Main Line Points.

When it is necessary for a Victorian train to work at the Storage Sidings, the Signalman must be so informed by the Guard or Shunter, and the Signalman, before withdrawing an Electric Staff for the train to proceed, must obtain permission to withdraw a Tablet for the New South Wales Section, in order to enable the Guard to operate the points at the entrance to the Sidings.

The Tablet required for a Victorian Train to work at the Sidings must be withdrawn in accordance with Rule 18, and must in every case be handed by the Signalman to the Guard, who will be responsible for the custody of the Tablet until he returns it to the Signalman.

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### TALLAROOK TO MANSFIELD AND CATHKIN TO ALEXANDRA LINES.

When vehicles on the Tallarook to Mansfield and Cathkin to Alexandra Line trains are attached by means of screw couplings, a space of two inches must be left between the buffers. Vehicles arriving at Tallarook for either of these Lines must, if tightly screw-coupled, have the couplings eased to the extent mentioned.

Unless special instructions are issued to the contrary, trucks fitted with pipes not operating Brake Blocks must not be allowed to run on the Cathkin—Alexandra Line.

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### TALLAROOK AND YEA.

1. Mixed trains running between Tallarook and Yea must have the three goods vehicles next in front of the Passenger vehicles screw-coupled. If there be less than three goods vehicles, then all the vehicles of which the train is composed must be screw-coupled.

2. If one or more of the vehicles which are screw-coupled be detached at a Roadside Station then the screw couplings must be transferred to the other vehicles so as to maintain the required number in accordance with clause 1. If the number of goods vehicles be reduced to less than 3, the screw couplings released must be taken on to Tallarook or Yea, as the case may be.

## NORTH-EASTERN SECTION.

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**3.** The Station-masters, Tallarook and Yea, must see that a sufficient supply of screw couplings is kept at their respective Stations.

**4.** TALLAROOK—KERRISDALE—YEA.—A Composite Electric Staff is provided for the Section Tallarook—Yea, and, when specially authorised, Kerrisdale will be opened as an Intermediate Block Post, and worked in accordance with the Instructions shown on pages 632-642.

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### WAHRING.

**1.** At Wahring the Crossing Loop (No. 2 Road) is on the Up side of the Passenger Platform. The Points at the Up end of the Loop are secured by an Annett Lock and worked from a two-lever Ground Frame near the Points; the Down Home Signal applicable to the Crossing Loop is also worked from this Frame. The Points at Down end of the Loop, also secured by an Annett Lock, are worked from a Quadrant Lever near the Points at that end. The Key of the Annett Lock is normally secured in an Annett Lock at the Interlocked Frame on the Platform. There is a Ground Disc Signal at each end of the Crossing Loop clear of the fouling points. No train entering the Loop in the Down direction must foul the Main Line at the Down end until the Driver has been instructed to do so by the Signalman.

**3.** SIDINGS.—The Points in the Main Line at each end of the Wood Siding (next to No. 1 Road) are secured by Plunger Locking.

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### MOOROPNA.

**(Private Siding for Ardmona Fruit Products Co-operative Co.)**

The above Siding leads from the Loop (Fruit) Road at Mooropna to the Company's works, about 450 feet from entrance. The grade in Siding is 1 in 150, falling from Departmental Siding towards works. A Notice Board lettered—"ENGINES MUST NOT PASS THIS POST" is erected 180 feet inside Points leading to Siding.

The company must accept delivery of all inward trucks on the Departmental Siding on Up side of Points leading to their Siding, and give delivery of all outward traffic, with trucks properly sheeted, doors closed and secured and coupled together ready for a straight pick up, with first truck out ahead of Engine Notice Board, and inside Scotch Block which is fixed on their Siding.

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### SHEPPARTON.

**(Canning Factory Siding—Shunting in the Absence of the Train Staff.)**

**1.** The Shepparton Canning Factory Loop Siding is situate on the Katamatite Line, about  $\frac{1}{2}$  mile from Shepparton Station.

The Points at each end of the Siding are rodded to Catch Blades in the Siding, and secured by Staff Locks.

## SPECIAL INSTRUCTIONS.

**2.** A Master Key lettered "SHEPPARTON CANNING FACTORY SIDING.— TO BE LOCKED IN SAFE AT SHEPPARTON WHEN NOT IN USE" is provided, and this Key is in the custody of the Station-master, Shepparton, and must be locked in the safe when not required for use. The Key must only be released and used under the personal supervision of the Station-master.

**3. (a)** When it is necessary to work the Siding by engine from Shepparton, and the Train Staff for the Section, Shepparton—Dookie, is not at the Shepparton Station, the Driver of an engine with or without trucks may proceed from Shepparton as far as the Canning Factory Siding, but no farther, when in possession of the Master Key described in clause 2, and after being instructed to do so by the Signalman at Shepparton.

**(b)** In the event of the engine proceeding to the Canning Factory, following a train in accordance with sub-clause (d) of clause 7, page 481, the Signalman at Shepparton must, before permitting the movement, assure himself that the train in the Section is proceeding on its journey at least one mile beyond the Canning Factory Siding.

**(c)** The following instructions and precautions must also be observed:—

- (i.)** The work must be performed in clear daylight only.
- (ii.)** The Station-master, Shepparton, must inform the Signalman of what is required, and at the same time hand him the Master Key.
- (iii.)** Before handing the Master Key to the Driver, the Signalman must first obtain permission from the Staff Station at the opposite end of the Section in accordance with the instructions contained in clause 7, pages 552-554, adding the words, "permission required to send Train to Canning Factory Siding" after the "Agne" message.
- (iv.)** The Signalman or person in charge at the opposite end of the Section may give such permission, acting in accordance with the instructions contained in clause 7, pages 552-554.
- (v.)** The engine must be accompanied by a competent Shunter, and when the engine or train arrives at the Siding the Driver must hand the Master Key to the Shunter to enable him to unlock the Points.

When the shunting has been completed and the Points placed in their proper position for trains to run on the Main Line, the Shunter must return the Master Key to the Driver, and the engine with or without trucks must immediately return to Shepparton.

- (vi.)** On arrival at Shepparton the Signalman must collect the the Master Key from the Driver, and send the "Awak" message, followed by the words "Engine has returned from Canning Factory Siding."
- (vii.)** On receiving the Master Key from the Signalman the Station-master must at once lock it in the safe until it is again required for use in accordance with these instructions.

**NORTH-EASTERN SECTION.**

(viii.) In the event of the engine breaking down when outside the Home Signal, or any accident occurring to prevent its return to Shepparton, the Driver must at once arrange for the Shunter to proceed to Shepparton and inform the Station-master of the circumstances, and the latter will make all the necessary arrangements, acting in accordance with the Rules.

The Shunter, when proceeding to Shepparton, must place Detonators on the Line in accordance with Regulation 239, and the Driver must arrange for his Fireman to similarly protect the engine in the opposite direction.

**TALLYGAROPNA AND WUNGHNU.**

1. Tallygaroopna and Wunghnu Stations are worked by two Station-masters and one Porter, whose hours of duty are as under:—

Station-master, Wunghnu.—From first train until the **Train Arrival** signal for the last Up Goods train has been received from Tallygaroopna.

Station-master, Tallygaroopna.—From first train until about 5.30 p.m.

Porter, Wunghnu.—On duty at 11 a.m. at Wunghnu, thence per afternoon Up Mixed train to Tallygaroopna, relieve the Station-master, returning to Wunghnu by last Down Mixed train.

2. On arrival of the last Up Goods train complete at Tallygaroopna, a Staff may be obtained at Tallygaroopna and Wunghnu for the last Down Mixed train, after which the Station-master at Wunghnu may go off duty. The Staff so obtained must be left in the holder of its Instrument until required.

3. On the arrival at Wunghnu of the last Down Mixed train, the Porter who travels with the train from Tallygaroopna must place the Signal to the Stop position and hand the Staff for the forward Section to the Driver, and he must remain on duty until the **Train Arrival** signal is received for such train from Numurkah. He will require to make the necessary entries in the train Register Book, and before going off duty place the Tallygaroopna—Wunghnu Staff in the Instrument.

4. When the Station-master, Wunghnu, comes on duty for the first train in the morning, he must, after having ascertained that the last Down train on the previous night arrived complete, give the **Train Arrival** signal to Tallygaroopna.

5. In the event of any failure, accident, or obstruction, whilst either Station-master is off duty, steps must be taken to acquaint him with the circumstances as soon as possible, in order that he may resume duty if necessary.

NOTE.—The mode of working shown above assumes that the last Up Goods train will clear Tallygaroopna before the last Down Mixed train is due to depart from there. In the event of any alteration in the ordinary working being necessary, the District Superintendent, Seymour, must make the necessary arrangements to meet the circumstances.

SPECIAL INSTRUCTIONS.

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**NUMURKAH—KATUNGA—STRATHMERTON.**

A Composite Electric Staff is provided for the Section Numurkah—Strathmerton, and, when specially authorised, Katunga will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

**LIFT BRIDGE OVER MURRAY RIVER BETWEEN STRATHMERTON AND TOCUMWAL.**

1. The Lift Span of the Bridge must be kept secured in position for a train to pass over, except when it requires to be open for river traffic, or when it requires cleaning or repairing.

2. The normal position of the Down Home Signal, which is worked from a quadrant in the Signal-box near the Up Side of the Bridge is Stop.

3. (a) When the Lift Span requires to be raised for river traffic, or otherwise, the Signaller at Tocumwal must send the **Release Staff for River Bridge** signal, viz:—7 beats (given thus: 4-3), and the Signaller at Strathmerton must (provided he is in a position to accept such signal without causing delay to traffic, and there is no train in the Section) acknowledge it, and give permission for a Staff to be withdrawn.

(b) When the Lift Span of the Bridge is properly secured in position, and the Line is again clear and safe for the passage of trains, the Staff must be returned to the Instrument and the **Bridge in Position, Staff Replaced** signal, viz: 7 beats (given thus: 3-4) must be sent to Strathmerton.

4. It may be necessary for the Lift Span to be raised during the night or on Sundays, in order to permit of a vessel passing. To provide for this, the Signaller at Tocumwal must on each week day before going off duty obtain permission in accordance with clause 3 to withdraw a Staff which must, unless required, be kept in the holder of the Instrument, and replaced when the Signaller at each end of the Section comes on duty next week day.

5. The description of each signal and the time it is given or received must be recorded in the Train Register Book at each end of the Section.

6. (a) To permit of the Lift Span being raised, the key end of the Electric Staff must be inserted and turned in the Staff Lock. The lever may then be moved to release the two plungers on the Down River side of the Bridge. When these plungers are withdrawn, the Annett Key (which is normally secured in the lock on the plunger lever) must be turned and withdrawn, and inserted and turned in the Annett Lock, which secures the plunger on the Up river side (Victorian end) of the Bridge. When this plunger is withdrawn, the Lift Span can be raised.

(b) When the Lift Span is lowered to its normal position the plunger on the Up river side must be pushed in, the Annett Key turned and withdrawn and inserted and turned in the lock on the plunger lever on the Down river side. This will unlock the plunger lever, which can then be put back, and the Electric Staff may then be turned and withdrawn.

## NORTH EASTERN SECTION.

(c) Any Staff that has been used to release the Lift Span must, unless it is again required for the same purpose before the Signaller at Strathmerton comes on duty, be at once returned to the Staff instrument. The same Staff must not be used for the next Up train proceeding over the Section.

7. (a) Before the Lift Span of the Bridge is raised the responsible employe must first see that there is no road traffic between the outside Gates on the Up or Down side, and he must also close and lock the Gates so as to prevent traffic from entering upon the Line. Similar precautions must be taken when a train is known to be approaching in either direction, and, in addition, the Gates at each end of the Bridge must be placed clear of the Line, and the rails cleared of any obstruction.

(b) When the Lift Span is again in its normal position, or the train has passed clear of the road approaches, the outside Gate on each side must be closed and locked across the Line, and the inside Gates reopened for road traffic.

(c) When nearing the Bridge in either direction the Driver must keep a good look-out and give one long distinct sound on the engine whistle.

8. When permission has been given to Strathmerton for a Down train to approach, an employe from Tocumwal must be at the Bridge in time to see that the Line there is clear and safe for the passage of the train.

9. (a) Before an Up train leaves Tocumwal, an employe from the Station must proceed to the Bridge, and when he has ascertained that the Line there is clear and safe, he must advise the Signaller by telephone to that effect, and upon receipt of such advice the train may, provided the Driver is in possession of the Staff for the Section, be allowed to proceed.

(b) The Driver of any Up train must approach the Bridge with his train well under control, and not proceed over it until he receives an "All Right" Hand Signal, which the employe previously referred to must, unless the Regulations require otherwise, exhibit near the Gates at the Down side of the Bridge.

(c) In the event of any failure of the telephone, the train must not be allowed to leave Tocumwal until sufficient time has elapsed to permit of the employe proceeding as far as the gate on the Up side, and returning to the Gate on the Down side.

10. Should the Electric Staff Instruments fail, no attempt must be made to raise the Lift Span until such time as they are again in proper working order.

11. If any wreckage or failure of any part of the Bridge or of the Staff Lock or Plungers occur, the matter must be at once reported to the Chief Engineer of Way and Works, to the Chief Engineer of Signals and Telegraph, and to the District Roadmaster, Signal Supervisor, and the Ganger, care being taken to give such particulars as may be necessary to enable the nature and extent of the accident to be understood. The Superintendent of Goods Train Service, District Superintendent, and Block and Signal Inspector must be also advised.



**TOCUMWAL.**

1. (a) **Wise Bros.' Flour Mill Siding.**—New South Wales trucks may be placed on or removed from this Siding by a New South Wales engine under the personal supervision of the officer in charge at Tocumwal during the hours of daylight only, and at a time convenient to this Department, provided that New South Wales trucks to be removed from Wise Bros.' Siding are first out.

(b) Whenever New South Wales trucks are standing first out of the third rail Section of the Siding, the Siding holders must arrange for Victorian trucks to be placed or removed from the portion of the Siding clear of the third rail Section between the turnout to the 4 foot 8½ inch gauge, and the Scotch Block on the Victorian Goods Siding, and if at any time trucks are delayed through the Private Siding being unavailable for the reception or removal of Victorian trucks consigned to, required by, or consigned by the Siding holders the ordinary demurrage rates shall apply in respect of each truck so delayed.

2. (a) **Deniliquin Road Crossing.**—The Down Home Signal (Victorian Line) must not be exhibited for a train to approach unless a competent employe, equipped with the necessary Hand Signals, is stationed at the Deniliquin Road Crossing as a Crossing-keeper, to warn pedestrians and the drivers of vehicles in regard to the approaching train, and to keep the Crossing clear until the train arrives in the Station Yard. The Signaller must keep the Signal at the Stop position until he has made sure that the Crossing-keeper is at his post.

(b) Before shunting operations are commenced over the Crossing from the Main Line to the Yard Roads or Sidings, the Crossing-keeper must be at his post to act, as set out in clause 1. The same must be done if it be necessary to push vehicles in either direction over the Crossing. The Crossing-keeper must remain at his post until the shunting or pushing operations are completed. During shunting or pushing operations over the Crossing, the Guard or other employe in charge of the operations must see that the Crossing-keeper is at his post, and if he be not there, the Guard or other employe in charge must himself protect the Crossing, as per clause 9 of the instructions shown on page 417.

(c) The Station-master, or in his absence the employe in charge of the Station, must see that the above instructions are understood and carefully observed by all employes concerned, and that a competent employe is appointed to act as Crossing-keeper, when necessary.

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**TATURA.**

During shunting operations at the Down end of the Yard at Tatura, the Driver must be careful not to foul the Hogan Street Crossing if such be avoidable. If it be not practicable to avoid fouling the Crossing, the Driver must keep a good look-out, and the Transportation employe in charge of the operations must remind the Driver to exercise care in regard to the Crossing.

## NORTH-EASTERN SECTION.

### TONGALA—KOYUGA—ECHUCA.

1. (a) A Composite Electric Staff is provided for the Section Tongala—Echuca, and, when specially authorised, Koyuga will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

(b) Fixed Signals are not provided at Koyuga, and sub-clauses (a) and (b) of clause 5 of the General Appendix Instructions referred to above must be observed.

(c) Koyuga is connected by telephone with Tongala, but not with Echuca, and the necessary messages in connection with train signalling, etc., must therefore be transmitted via Tongala.

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### TATONG.

1. **McCashney Bros., and Harper's Horse Tramway.**—This Tramway crosses the Railway Line at the Level Crossing between the Station and the dead-end, and enters the Railway Yard at the Down end.

2. The following instructions must be observed whenever it is necessary for a tram to cross the Railway Line:—

(a) The person in charge of the tram must, in every case, before crossing the Railway Line, obtain the permission of the employe-in-charge of the Station, and the latter must arrange for a Red Hand Signal to be exhibited between the Level Crossing and the Station. The Red Signal must be exhibited so as to be plainly visible to the Driver of any approaching engine, until the tram has passed clear of the Level Crossing.

(b) Before granting permission for the tram to cross, the employe in charge of the Station must see that no train or Light Engine is approaching; should one be approaching, permission must not be granted until the train or Light Engine has arrived and stopped.

(c) When there is a train or Light Engine at the Station, the employe in charge of the Station must not give permission for a tram to cross until the Guard of the train or Driver of the Light Engine has been consulted and has given consent for the movement.

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### RUTHERGLEN—CONSOLS SIDING.

Consols Siding is situate  $2\frac{1}{2}$  miles on the Up side of Rutherglen. At the Up end the Points in the Main Line and the Catch Points in the Siding are rodded together and worked by a lever. At the Down end the Points in the Main Line and Safety Points in the Siding are rodded together and worked by a lever. The Points in the Main Line at each end are secured by a Staff Lock, the Key for which is the Train Staff for the Section Springhurst—Rutherglen. The Ballast Line leads off the Loop, the Points facing in the Up direction.

**EVERTON.**

At any time when there are two engines at Everton, and one has to stand out on the Main Line clear of the Junction while shunting operations are in progress, the Station-master or person in charge must inform the Driver of the engine that will require to stand out on the Main Line, that he is not to move his engine from there in the direction of the Station Yard until he has been verbally instructed to do so. This is to prevent any Hand Signal that may be given in connection with the shunting operations being taken by the Driver of such engine.

At Everton no vehicle, when coupled to an engine, must be allowed to pass on to the turn-table.

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**BEECHWORTH TO EVERTON AND BEECHWORTH TO YACKANDANDAH.**

1. On the **Up** journey every train must be stopped on the summit of the rise a short distance from Beechworth, where the Hand Brakes must be put down on all trucks fitted with pipes not operating Brake-blocks; on all trucks on which the Air Brake is fitted but inoperative, and on as many of the other vehicles in operation as the Driver may consider necessary for the proper control of the train. The Hand Brakes must be taken off again at Everton.

2. On the **Down** journey Hand Brakes must be similarly applied on the summit of the rise at 173 miles from Melbourne, and be lifted at Wooragee; and they must be again applied at the summit of the rise at 180½ miles from Melbourne, and be lifted at Yackandandah. The duty of dropping the Hand Brakes and lifting them again at the proper places must be jointly performed by the Fireman and Guard. When the Hand Brakes are applied the Levers must be pressed down and secured by pin or ratchet.

3. Unless special instructions are issued to the contrary, trucks fitted with pipes not operating Brake Blocks must not be permitted to run between Everton and Yackandandah.

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**EBDEN—HUON—TALLANGATTA.**

A Composite Electric Staff is provided for the Section Ebdon—Tallangatta, and, when specially authorised, Huon will be opened as an Intermediate Block Post, and worked in accordance with the Instructions shown on pages 632-642.

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**TALLANGATTA—CUDGEWA.**
**Working of Trains on Falling Gradients.**

1. (a) **DOWN TRAINS.**—On the Down journey each train must stop at Shelley, where Hand Brakes must be put down on as many vehicles as the Driver may consider necessary for the proper control of the train.

## NORTH EASTERN SECTION.

(b) **UP TRAINS.**—On the Up journey each train must stop on the summit of the rise, about one quarter mile on the Up side of Shelley, where the Hand Brakes must be put down on as many vehicles as the Driver may consider necessary for the proper control of the train; the Hand Brakes must be lifted again at  $230\frac{1}{4}$  miles, and the train must be again stopped at 228 miles (one mile on the Up side of Koetong), where the Brakes must be again put down—and lifted again at  $218\frac{1}{2}$  miles. See clause 7, Air Brake Orders, pages 603-604.

**2. SPRAGS.**—(a) Each Guard, before leaving Tallangatta, Cudgewa or Shelley will be held responsible for seeing that his Van is equipped with at least four (4) Sprags for use as provided in Regulation 204.

(b) Station-master, Tallangatta, must arrange to keep a supply of Sprags on hand so that Guards may obtain them when necessary. Application for the number required to keep up Stock required for the Line (which will be 25) to be made by memo. to the District Superintendent.

**Screw Couplings.**—When vehicles (other than the Passenger and Workmen's Sleeping Cars referred to hereunder) on the Tallangatta-Cudgewa Line are attached by means of screw couplings, a space of three inches must be left between the buffers. In the case of Four-wheeled Passenger Vehicles or Workmen's Sleeping Cars, having a wheel base of 15 feet or over, the full amount of slack that the coupling will permit, must be allowed between any two such vehicles, or between any vehicle of this type and the adjoining vehicle." The Officer-in-charge will be held responsible for seeing that vehicles arriving at Tallangatta for this Line, if tightly screw-coupled, have the couplings eased to the extent mentioned by the employes concerned; the Guard of every Up train must adopt a similar course in respect of trucks placed on his train at any station on the Down side of Tallangatta.

**3.** Unless special instructions are issued to the contrary, trucks fitted with pipes not operating Brake Blocks must not be allowed to run between Tallangatta and Cudgewa; such trucks must not be loaded for Stations beyond Tallangatta.

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## Eastern and South-Eastern Sections.

### BERWICK.

Subject to the Rules and Regulations, the Signalman at Berwick must, as far as possible, avoid stopping Down Goods trains at the Down Home Signal, owing to the heavy grade and curve. Goods trains with over 75 per cent. of a full load should be kept back at Narre Warren until it is reasonably expected that the Proceed Signal may be exhibited in time to avoid bringing the train to a stand at the Home Signal. Guards of Goods trains with over 75 per cent. of full load are to so inform the Signalman at "B" Box, Dandenong, who must send word on to Narre Warren, and the latter must instruct Berwick.

### LONGWARRY.

The Points in the Main Line at Longwarry are controlled as specified hereunder:—

**1. Up End.**—The Points in the Main Line leading to the Goods Siding, also the Points in the Main Line leading to the Wood Siding, are rodded to Derails in the respective Sidings and worked by levers placed near the Points. Each set of Down Facing Points in the Main Line is secured by Plunger Lock, fitted to a third lever, situated on the right-hand side of the Line (facing Down direction); this Lever is Annett locked and when unlocked and pulled over, will release the levers working the Points leading to the Sidings.

**2. Down End.**—The Points in the Main Line and the Catch Points in the Goods Siding are rodded together and worked by a lever placed near the Points.

The Points in the Main Line and the Safety Points in the Wood Siding are rodded together and worked by a lever placed near the Points.

Each set of Up Facing Points in the Main Line is secured by Annett Lock.

**3.** The Auxiliary Quadrant lever of the Up Home Signal is situated between Nos. 1 and 2 Roads (down end) and secured in the normal position by an Annett Lock.

**4.** When the Key is used to release any of the Points mentioned in Clauses 1 and 2, the levers of all Signals, except the Down Home protecting the Platform Road, are secured in the normal position.

**5.** A duplicate Annett Lock is provided on the Up Home Signal Lever, and the Down Outgoing Home Signal Lever.

**6.** The Key fits all the Locks, and, when not in use, it must be kept in the Station-master's Office, in a place known to all concerned. It must be used only by the Signalman for the working of the Signals, but he may hand it over to a Guard or Shunter to enable shunting operations to be conducted. When the Shunting operations have been completed, the Key must be returned to the Signalman.

## EASTERN AND SOUTH-EASTERN SECTIONS.

**DROUIN.**

Trucks taken on from Drouin by Up trains are to be placed together next the engine, and marshalled at Longwarry.

**WARRAGUL.**

**1. Auxiliary Frame.**—The employe in charge at Box "A" at Warragul must obtain permission from the Shunter in charge before exhibiting the Signal to admit a Down train or Light Engine into the Goods Yard. The Signalman "B" Box must not allow any Up train to enter any of the Goods Roads (No. 2 Road excepted) without the permission of the Shunter in charge. The Shunter in charge, after having given permission for an Up or Down train to enter any Goods Road, must see that such Road is kept clear.

**2. Engines from Loco. Roads.**—Telephone communication is provided between Signal Box "B" and the Coal Stage Cabin at Warragul. In the event of an Engine-driver being detained at the Siding Signal he must communicate with the Signalman, informing him of his requirements, and ascertain the cause of the detention. All messages sent and received must be recorded by the Signalman in the Train Register Book.

**TRAFALGAR.**

Trucks consigned to the Trafalgar Co-operative Butter and Cheese Company are to be placed in the Company's Private Siding by the train engine. The engine must not proceed along the Siding beyond the site of the Scotch Block.

**GIPPSLAND BLUE METAL AND FUEL CO. LTD. SIDING.**

**1.** The abovenamed Siding (situate 76 Miles 67 Chains between Trafalgar and Moe) consists of a Loop Siding with a Spur Siding leading from the centre of Loop to a Dead-end; the Points are facing in Up direction.

**2.** The Spur Siding is 1200 feet in length from Points to Buffer Stops, and crosses a public road by open Level Crossing 440 feet from Points in Loop Siding. Gates are provided at each side of the Roadway, and Siding holders will be responsible for these being closed and secured across the Line when not otherwise required for use. Siding holders will also be responsible for having the Gates opened in good time for the passage of Railway vehicles.

**3.** The attention of Guards and Shunters working on the Spur Siding is directed to clause 6 of the Instructions on page 397, which must be strictly observed when such movements are being performed. Loose shunting of vehicles must not be permitted over this Crossing; in every instance the vehicles must remain attached to the engine until placed in position on the Spur Siding.

A Notice Board lettered "ENGINES MUST NOT PASS THIS POST" is erected 100 feet, and a Scotch Block is fixed 40 feet inside the second gate.

**SPECIAL INSTRUCTIONS.**

**MOE — HERNE'S OAK — MORWELL.**

**(Great Morwell Coal Mines.)**

**1.** (a) The Line to Yallourn (the Great Morwell Coal Mines) diverges to the left from the Eastern Line at Herne's Oak, situate between Moe and Morwell.

(b) Herne's Oak is worked under the Instructions shown on pages 649-655, respecting the working of unattended Siding, Junction or Station, equipped with an Intermediate Electric Staff Instrument.

For the purposes of clause 6 of the Instructions referred to, a Railway Tricycle must be always available at Herne's Oak; when not in use the Tricycle must be secured in the Cabin, where the Staff Instrument is fixed.

**2. Herne's Oak — Yallourn — Great Morwell Coal Mine.—**

The Section of Line between Herne's Oak and Yallourn is worked in accordance with the Rules contained in Appendix II. of the Book of Rules and Regulations and the Supplementary Instructions shown on pages 649-655 of this Book.

**3.** (a) **HERNE'S OAK.**—A competent employe is in charge at Herne's Oak during specified hours, and trains on the Branch Line must only be permitted to cross there, or travel on a Staff Ticket between Yallourn and Herne's Oak during the time he is on duty. The employe must also be on duty for all Passenger trains run on this Line.

(b) A small box with the words "TRAIN STAFF BOX" painted thereon and secured by a standard padlock is provided in the cabin at Herne's Oak, and before leaving duty the employe in charge of Staff Working must, whenever the Train Staff is at Herne's Oak, place and lock it in the Box. The Guard of the first train from Moe to Yallourn must be provided, by the Station-master, Moe, with a key to open this Box.

**4.** (a) The Guard of the first train from Moe to Yallourn will be responsible for working the Intermediate Electric Staff Instrument at Herne's Oak in accordance with instructions referred to in sub-clause (b), clause 1 hereof, and also for obtaining the Train Staff from the Box described in sub-clause (b), clause 3 hereof, and handing it to the Driver of the train. He must also enter the arrival and departure of the train in the Train Register Book.

(b) When the train has to run on a Staff Ticket the Guard will be so instructed at Moe, and, on arrival at Herne's Oak, he must obtain the Train Staff to open the Staff Box, and after writing out and handing the Driver a Ticket, at the same time showing him the Train Staff, he must secure the Staff in the Box. The Guard must also send the "Apix" message to Yallourn, and enter particulars in the Train Register Book.

(c) The "Acre" message for this train must be obtained from Yallourn by the employe in charge at Herne's Oak when he comes on duty and before permitting the next train to proceed towards Yallourn.

**5.** The employe in charge at Herne's Oak while on duty will be responsible for working the intermediate Electric Staff Instrument, and this modifies the instructions in respect of the Guard's duties.

## EASTERN AND SOUTH-EASTERN SECTIONS.

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**6.** A Master Key lettered "S.M., Moe, For Use at Herne's Oak. In event of failure of Electric Staff Apparatus" has been provided for the purpose of opening the Staff-locked points at Herne's Oak, in the event of a Failure of Staff Instruments between Moe and Morwell, and the Pilotman is not in possession of a Staff, see sub-clause (iii.) of clause (a) Electric Staff Rule 27.

- (i.) The Master Key must be normally locked away in the safe at Moe and must only be released or used for the purpose set out in these Instructions, and only by permission, and in the presence, of the Officer-in-Charge at Moe, who must personally hand the key to the Pilotman and instruct him in its use.
- (ii.) After Pilot-working is established, the Pilotman must, before despatching a train from either end of the Section, show the Master Key to the Signalman.
- (iii.) When the Pilotman is in possession of the Master Key, and it is necessary to use it to operate the Staff-locked Points at Herne's Oak the Guard of the train or the Driver in the case of a Light Engine, as well as the Pilotman, will be responsible for the Points being properly set and secured, and also that, after use, the Points are properly set for the Main Line, and tested.
- (iv.) The Pilotman must keep the Master Key in his possession until the Electric Staff Instruments are again ready for use.
- (v.) The Officer-in-charge, Moe, will also be responsible for the Master Key being returned promptly, and again locked away when no longer required for use in accordance with these Instructions.

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### TRARALGON.

#### Uncoupling of Up Goods Trains at Up Home Signal.

**1.** When, owing to congestion in the local yard, or other cause, it becomes necessary to release the engine of a Goods train at the Up Home Signal, this may be done, but, in every instance, the following precautions must be adopted:—

- (i.) The uncoupling should only be done under the direction of the Station-master or Night Officer, who must first inform the Signalman of what is intended to be done, and also the Driver and Guard of the train. Before the train is uncoupled, the Guard must, in addition to screwing on the Hand Brake in the Van, apply a sufficient number of Hand Brakes in accordance with Regulation 204, and clause 6 of the instructions on page 603, and immediately after the engine is detached he must place a Red flag or Red light on the front vehicle of the train in conformity with Regulation 209.



## SPECIAL INSTRUCTIONS.

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- (ii.) The engine may then (provided all is clear for it to do so) run to the Signal-box, and the Driver must hand up the Staff to the Signalman, but the latter must not place it in the Instrument or send the **Train Arrival** signal until the whole of the train with Tail Signal attached has arrived inside the Home Signal, as prescribed by Electric Staff Rule 12.

**2.** It must be distinctly understood that the train must be brought inside the Home Signal as soon as it is practicable to do so.

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### TRARALGON—FLYNN—ROSEDALE.

A Composite Electric Staff is provided for the Section Traralgon—Rosedale, and, when specially authorised, Flynn will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

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### SALE.

**1.** When an Up Goods ex Bairnsdale arrives at Sale during the time that No. 4 Down or any other Passenger train is at the platform, the Station-master may arrange for the Goods train to be brought direct into No. 3 Road. When this course is followed, the Signalman must not exhibit the Signal to admit the Goods train until he has been directed to do so by the Station-master, and the latter, before giving any such direction, must see that No. 3 Road is clear to the Buffer Stops, and that all shunting and engine movements in the Yard are stopped until the Goods train has arrived in the Station Yard. He must personally supervise the operation, and not permit any shunting to be resumed until any passengers who may have arrived by the Goods train have been escorted to the platform.

**2. British Imperial Oil Co.'s Siding.**— (a) The above Siding leads from the Sale Wharf Line at 129½ miles from Melbourne (Spencer street), with Points facing in Down direction.

(b) The approach to Siding is across an open Level Crossing at Foster-street; during shunting movements, pushing or otherwise, the Guard or Shunter must protect the Level Crossing as per clause 6, page 417.

(c) A Gate is erected across the Line at the Down side of Foster-street, and a Notice Board lettered "ENGINES MUST NOT PASS THIS POINT" is erected 3 feet inside the Gate, at which point Siding holders must give and take delivery of trucks.

(d) The grade from centre of Level Crossing to buffer stops is 1 in 150 falling to dead end, and there is room for 4 trucks between the Notice Board and Buffer Stops.

## EASTERN AND SOUTH-EASTERN SECTIONS.

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### STRATFORD—MUNRO—FERNBANK.

1. A Composite Electric Staff is provided for the Section Stratford—Fernbank, and, when specially authorised, Munro will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

2. Munro is connected by telephone with Stratford, but not with Fernbank, and the necessary messages in connection with Train Signalling, etc., must therefore be transmitted via Stratford.

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### BAIRNSDALE.

1. Unless otherwise specially arranged, the Staff at Bairnsdale will not be on duty for the departure of the first Down Goods train, Bairnsdale to Orbost Line, and the Guard of that train will act as Station-master in accordance with the Instructions shown on pages 208-213, and in connection therewith, the precautions shown hereunder must be observed by all concerned.

2. A special box, secured by a standard pattern padlock, has been provided on the wall of Station building under the verandah at Bairnsdale for the purpose of containing the Train Staff for the Section Bairnsdale—Bruthen, and the Annett Key for the Points leading to Loco. Yard.

One of the keys for the padlock must be retained by the Station-master and one must be held by the Guard of the train referred to in clause 1.

3. Before the Signaller goes off duty at night, he will be responsible for seeing that the Train Staff and Annett Key are locked in the box provided for the purpose, and the key of the padlock securing the box placed away in the usual safe position.

4. When the Guard of the first Down Goods train comes on duty, he will be responsible for the use and safety of the Points and Annett Key, and after the shunting has been completed and the train is ready to start, he must give the Train Staff to the Driver and show him the Annett Key, which must be then locked in the box.

The Driver of the train must sight the Annett Key before departing.

5. When the Signaller arrives on duty in the morning, he must at once remove the Annett Key from the box and put it in the usual safe place.

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### BAIRNSDALE—ORBOST LINE.

#### (Screw Couplings.)

When vehicles on the above Line are attached by Screw Couplings a space of 2 inches must be allowed between the Buffers; the Couplings must be eased to this extent at Bairnsdale or Orbost.

## SPECIAL INSTRUCTIONS.

### NEERIM SOUTH TO NOOJEE.

#### Working of Trains on Falling Gradients.

**1. (a) DOWN TRAINS.**—On the Down journey each train must stop at Nayook, where the Hand Brakes must be applied on as many vehicles as the Driver may consider necessary for the proper control of the train. See clause 7, Air Brake Orders, pages 603-604.

**(b) UP TRAINS.**—On the Up journey each train must stop at Neerim, where the Hand Brakes must be put down on as many vehicles as the Driver may consider necessary for the proper control of the train; Brakes to be lifted again at Neerim South. See clause 7, Air Brake Orders, pages 603-604.

**2. SCREW COUPLINGS.**—When vehicles on the Warragul to Noojee Line trains are attached by Screw Couplings, a space of two and a half inches must be left between the buffers. Vehicles arriving at Warragul for this Line must, if tightly coupled, have the Couplings eased to this extent.

**3.** Unless special instructions are issued to the contrary, trucks fitted with pipes not operating Brake Blocks must not be allowed to run between Neerim South and Noojee; such trucks must not be loaded for Stations beyond Neerim South.

### WALHALLA LINE.

**1. Gould—Worked Occasionally as a Telephone Block Post.**—When it is necessary for a train to be despatched on a Staff Ticket from Moe or Erica, and it is required to despatch a second train before the first has arrived at the next Staff Station, arrangements must be made for Gould to be worked as an Intermediate Telephone Block Post in accordance with clause 3 of the Supplementary Instructions shown on pages 549-551.

**2.** The Guard of the train travelling on a Ticket, or the Driver of the Tricycle or Motor scheduled as a train, to convey the Mails, and the Guard of the train following, must in every case have in their possession a key of the office at Gould. The Guard of the second train must on arrival at Gould communicate with the Signaller at the Staff Station in advance, and must not allow his train or motor to leave Gould until he has ascertained that the previous train has arrived complete; all messages exchanged must be entered in the Train Register Book.

**NOTE.**—The space between the Running Line and the Siding at Gould is less than the standard clearance, and employes are warned of the need for exercising due care to avoid injury to themselves or others; no person should be allowed in the space between the Siding and Running Line during the time shunting is being performed.

**3. Knott's, O'Shea's, White Rock Lime Sidings & Platina.**—(a) Mixed trains may work at these Sidings, but before the engine is detached from the train at such Sidings the Air Brake must be applied; the Hand Brakes on all trucks on the portion of the train to be left standing on

## EASTERN AND SOUTH-EASTERN SECTIONS.

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the Running Line must be properly secured, and the Hand Brake in each Guard's Van must be screwed on. Hand Scotchies must also be used as prescribed in Regulation 204.

(b) The Guard must not uncouple, nor give permission for the engine to be uncoupled, until the above instructions have been carried out.

### GLENGARRY—TOONGABBIE—COWWARR.

A Composite Electric Staff is provided for the Section Glengarry—Cowwarr, and, when specially authorised, Toongabbie, will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

### MAFFRA PUBLIC CROSSING.

Drivers of Up or Down trains approaching the Public Crossing at Maffra must not pass the Crossing at a rate of speed exceeding **10** miles per hour. There is a "Whistle" and "Slow" Board at the point referred to.

### MAFFRA BEET SUGAR COMPANY'S SIDING.

**1.** The Maffra Beet Sugar Company's Siding leads off the Main Line at the Up end of the Maffra Station Yard in the Down facing direction. The Facing Points in the Main Line are secured by means of a Plunger Lock. There is a Catch Siding for outwards traffic, and the Hand Points have to be moved for shunting out on to the Main Line.

**2.** All trucks for the factory, including not only those that are fully loaded, but also those containing Goods to the extent of one ton or more which arrive at Maffra between the hours of 4 p.m. and 11 a.m. must be placed at the factory by the Department's engine, which must also be used for shunting trucks as required.

**3.** Trucks which arrive between the hours of 11 a.m. and 4 p.m. must be placed, and, if necessary, shunted for weighing purposes by horse power provided by the Company. All such trucks must be unloaded and made available for removal not later than 8 a.m. the following day.

**4.** For the purpose of placing such trucks as should be shunted by engine power, the Station-master, Maffra, must, if necessary, arrange for the engine and van of the 5 a.m. Down train to return from Stratford about 9 a.m., and for it to again proceed to Stratford as soon as possible, and in sufficient time to prevent delay to the Up train.

### CRANBOURNE — MAYFIELD SAND SIDING — CLYDE.

**1.** (a) The Mayfield Sand Company's Siding diverges to the Right from the South-Eastern Line at 28 miles 71 chains from Melbourne on the Down side of Cranbourne Station. The Siding crosses Barkly and Clarendon-street, on Down side of the Junction with Main Line, and

## SPECIAL INSTRUCTIONS.

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runs alongside the latter street for a distance of 75 chains. It then crosses Sladen-street, where a cattle grid is provided, and thence to Terminus from that Point.

(b) There is a Loop extending to a Dead-end at the Terminus. A Notice Board lettered "ENGINES MUST NOT PASS THIS POST," is fixed at Down end of Loop at the Terminus.

(c) The steepest grade against outward traffic is 1 in 77.

**2.** (a) An Intermediate Electric Staff Instrument is provided at the Junction, and trains proceeding to the Siding will be worked in accordance with the Instructions for "Working an Unattended Siding, Junction, or Station equipped with an Intermediate Electric Staff Instrument." See pages 649-655.

(b) The Siding must only be worked during daylight, and the maximum rate of speed of any train or engine must not exceed a rate of 15 miles per hour.

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### CLYDE.

At Clyde Up trains are to have preference, and must not be checked on the rising grade into the Station, if it can be safely avoided. When an Up Goods train crosses a Down Goods train, the Up Goods train must be turned into No. 2 Road.

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### NYORA.

#### (Regulations 204 and clause (c) 209.)

Regulation 209, Clause (c).—Detached vehicles may be allowed to stand outside the Home Signal under the circumstances specified hereunder:—

When it is necessary for a Down Goods train to stop at the Home Signal, and for the engine to be uncoupled for shunting purposes, the Station-master must, after informing the Signalman, despatch a Shunter to instruct the Driver and Guard of the train of what is required. The Guard must then properly secure his train by means of the Van Brake, and by applying every Hand Brake on the train up to the point where the uncoupling is to be done, after which the Guard or Shunter may proceed with the work.

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### KORUMBURRA—SHUNTING ON THE MAIN LINE.

**1.** At Korumburra, vehicles must not be shunted on the Main Line outside the Points at either end of the Yard, unless they are attached to the engine, which must in all cases be between the vehicles and the falling grade.

**2. Cattle Yarding Siding.**— (a) This Siding is situate a short distance outside the Down Distant Signal at Korumburra. The Driver of any engine working at the Siding must be in possession of the Train Staff for the Section, Korumburra—Bena.

## EASTERN AND SOUTH-EASTERN SECTIONS.

(b) The Points in the Main Line at the Down end are rodded to a Deraill in the Siding, and the Points in the Main Line at the Up end are rodded to Safety Points in the Siding, the Points in the Main Line at each end being secured by the Staff Lock and worked by lever near the Points.

NOTE.—Vehicles may be drawn from Korumburra to the Siding, and (during daylight only) pushed from the Siding to Korumburra without a Brake-van, subject to the instructions on pages 396-399 and 472-479; during darkness a Brake-van must be attached to the train.

### KORUMBURRA COAL LINES.

**1.** (a) The Line between Korumburra and Jumbunna is worked under the Train Staff and Ticket System.

(b) Trains are not allowed to work during darkness at the Austral Coal Co.'s Siding, Coal Creek Co.'s Siding, or the Jumbunna Coal Sidings.

(c) Drivers and Guards running on the Coal Lines must keep a good look-out in case the Line should be obstructed by limbs falling from overhanging trees.

**2.** (a) The Points at the Junctions of the Outtrim and Coal Creek Lines are secured by a Staff Lock and by a Plunger which works both ways. The Key of the Staff Lock is the Train Staff for the Section, Korumburra-Jumbunna.

(b) The Points must be properly set, and the Point lever firmly down in the notch before the Staff is withdrawn. When the road is not made in the proper direction, the Driver must stop before reaching the Points, and give the Train Staff to the Guard or Shunter for the Points to be re-set, and he must not resume the journey until he is again in possession of the Staff.

**3. Wynne's Siding.** (a) This Siding, which is situate at 1 mile 5 chains from Korumburra, has accommodation for 7 trucks.

(b) The Points in the Main Line are secured by a Staff Lock. A Scotch Block is provided in the Siding, and in every case, after completion of work, it must be secured across the rail and padlocked in that position. Any defects noticed in the padlock or Scotch Block must be brought under the notice of the Station-master, Korumburra, who will immediately arrange for the matter to be put in order.

**4. Bottom's Siding.**—The Points in Main Line are secured by a Staff Lock, and a Scotch Block is provided in Siding; in every case, after completion of work, the Scotch Block must be secured across the rail and padlocked in that position. Any defect noticed in the padlock or Scotch Block must be brought under the notice of Station-master, Korumburra, who will immediately arrange for the matter to be put in order.

A Notice Board lettered, "ENGINES, VANS, BOX TRUCKS, AND TRUCKS LOADED ABOVE WATER LEVEL MUST NOT PASS THIS POST," is erected on Up side of Screens.

**5.** The portions of the Korumburra Coal Lines from the Austral Mine, and from the Potato Siding to Strezlecki's Siding, are closed to traffic.

## SPECIAL INSTRUCTIONS.

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6. (a) **Jumbunna—Outtrim Section.**—Loading Chutes are erected at the following Sidings:—

- (i.) Outtrim Coal Mining Syndicate, at 74 miles 71 chains.
- (ii.) Mount Pleasant Colliery Co., 75 miles 5 chains.

(b) The above chutes, which are normally secured clear of the Siding, are controlled by a Locking Bar secured by an Annett Lock. The Annett Key is attached to the Train Staff for the Section Jumbunna—Outtrim.

(c) The chutes are so arranged that they cannot be lowered until the Annett Lock is released, and after being lowered the Annett Key cannot be withdrawn from the Lock until the chutes are raised and locked clear by the locking Bar.

(d) The Annett Key must not be removed from the Train Staff, and only Trains Carrying the Staff must work at any chute.

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### KORUMBURRA—KARDELLA—LEONGATHA.

A Composite Electric Staff is provided for the Section Korumburra—Leongatha, and, when specially authorised, Kardella will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

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### LEONGATHA—MEENIYAN—STONY CREEK.

(a) A Composite Electric Staff is provided for the Section Leongatha—Stony Creek, and, when specially authorised, Meeniyán will be opened as an Intermediate Block Post and worked in accordance with the Instructions shown on pages 632-642.

(b) Fixed Signals are not provided at Meeniyán, and sub-clauses (a) and (b) of clause 5 of the General Appendix instructions referred to above must be observed.

(c) The Composite Staff for the above Section has a feather at both ends, making the Ticket "A" and Ticket "B" portions capable of opening Staff Locks.

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### HAMILTON'S SIDING, NEAR BOYS.

Hamilton's Private Siding, which leads off the Main Line at 97 miles 37 chains 91 links on the Up side of Boys Station, is open for outwards timber traffic in truck loads. Only Goods trains are to work at this Siding.

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### FOSTER BALLAST SIDING.

This Ballast Siding leads off No. 1 Road at the Down end of the Foster Station Yard. The Points are facing in the Down direction. When an engine enters the Siding no train or engine movement must be permitted in No. 1 Road until the engine returns from the Ballast Siding.

The speed of any train or engine running on this Siding must not exceed a rate of 10 miles per hour.

**WELSHPOOL TRAMWAY LINE.**

1. The Welshpool tramway (Narrow Gauge, 2 feet 6 inches) is  $3\frac{1}{4}$  miles in length. It connects Welshpool Station with Port Welshpool Jetty, and is worked by horse power.

2. The tramway is kept in order by the Way and Works Branch, and the Rolling Stock by the Rolling Stock Branch. The working of the tramway is supervised by the Station-master, Welshpool.

3. Trips are run as laid down in the Working Time-table. Telephone communication is provided between Welshpool and Port Welshpool.

4. The Tramway is not equipped with Fixed Signals but Catch Points are provided in the Tramway on each side of the Main Line. The Catch Points are rodded together and worked by a lever, which is secured by an Annett Lock, with duplicate locks on the levers of the Up and Down Main Line Home Signals at the quadrants on the platform. When the Annett Key is absent from the quadrants the Fixed Signals are secured at the Stop position. The key must not be returned to the locks on the Signal Levers until the trolley has passed clear of Main Line over both Catch Points. A padlock and chain is provided on the lever governing the Catch Points, and must be used to secure the lever to the pulled over position until the trolley is clear of Main Line and Catch Points.

5. Consignments of goods of such length or dimensions as to require the use of two or more trollies must not be accepted for conveyance over any portion of the tramway without first obtaining authority from the General Superintendent of Transportation.

**LEONGATHA—FOSTER.**

**Market Train—Thursdays.—Provision to allow a train to run over a Section in both Directions with the Same Train Staff.**

1. The Staff Exchange Boxes at Stony Creek and Fish Creek will be brought into use for the late trip of the Market Train on Thursdays for both "Down" and "Up" journeys under the following conditions:—

(a) After the Train Arrival Signal for the previous train has been exchanged, the Signaller, Leongatha, must obtain a staff from Stony Creek for the Market Train; the Signallers, Stony Creek and Fish Creek, likewise must obtain a Staff from the Station in advance, and place it in the Staff Exchange Box at their respective Stations.

(b) The Signallers at Stony Creek, Fish Creek and Foster, must act in accordance with clause 3, pages 646-647, and, in addition, the Signallers at Stony Creek and Fish Creek must place both Down and Up Home Signals at the Proceed position.

(c) When the train arrives at Stony Creek and Fish Creek on both Down and Up journey, the Guard must act in accordance with Instructions on pages 208-211.



## SPECIAL INSTRUCTIONS.

- (d) When the train arrives at Foster on the "Down" journey, the Signaller must place the Home Signal at the Stop position, obtain the Staff from the Driver, and must be careful not to place it through the instrument, but after seeing that the train has arrived complete, place it in the holder of the instrument, and when required for the return journey, he must hand it to the Driver.
- (e) When the train arrives complete at Leongatha on the Up journey, the Signaller must place the Staff in the holder of the instrument until intimation is received that the Signaller at Stony Creek is in attendance, when he must restore the staff to the instrument and send the "Cancelling" Signal.
- (f) When the Signallers at Foster, Fish Creek and Stony Creek come on duty on Friday mornings, they must at once advise the Stations on either side of them, but Signallers at Stony Creek and Fish Creek must keep the Staff out of their instruments until they receive the "Cancelling" Signal from the Station in the rear, when they must in turn send the "Cancelling" Signal to the Station in advance.

### LEONGATHA—YARRAM LINE.

#### Provision for Working No. 21 Down Mixed on Wednesdays.—

(a) The Staff Exchange Boxes at Stony Creek and Fish Creek will be in use for No. 21 Down on Wednesdays, and must be worked in accordance with Instructions on pages 646-647, General Appendix.

(b) The Guard and Driver must act at Stony Creek and Fish Creek in accordance with the Instructions on pages 208-211, General Appendix. The Guard will be in charge of the Staff Working, Foster to Alberton inclusive, which will be worked in accordance with the following instructions:—

- (i.) Before leaving Leongatha, the Officer in charge must provide him with duplicate keys of the offices at Foster, Toora, Welshpool, and Alberton. Such keys to be handed over on return to Officer in charge.
- (ii.) The Station-master at Foster must, prior to going off duty on Wednesday, withdraw an Electric Staff for the forward section, and leave it in the holder of the Instrument, and place the Down Home Signals to the Proceed position.
- (iii.) The Station-masters at Toora, Welshpool and Alberton must, before going off duty, assure themselves that the Train Staff for each respective forward Section is in the lock of the Staff Ticket Box, and at all Stations that the Down Home Signal is lowered to the Proceed position, and all Signal lamps are burning brightly.
- (iv.) When the train arrives at Foster, the Guard must place the Down Home Signal to the Stop position (except the Departure Signal), obtain the Electric Staff from the Driver,

## EASTERN AND SOUTH-EASTERN SECTIONS.

and place it in the pocket of the Instrument, but must not place it through the lock; he must then obtain the Electric Staff for the forward Section, and hand it to the Driver.

- (v.) When the train arrives at Toora, the Guard must place the Down Home Signal at Stop, obtain the Electric Staff from the Driver, and place it in the Pocket of the Instrument, but must not place it through the lock; he must then obtain the Train Staff for the forward Section, and hand it to the Driver.
- (vi.) When the train arrives at Welshpool and Alberton, the Guard must place the Down Home Signal to Stop, obtain the Staff from the Driver, and place it in the lock of the Staff Ticket Box. He must then obtain the Staff for the forward Section and hand it to the Driver.
- (vii.) The Guard will be responsible for recording the time of arrival and departure of train in the proper columns of Train Register Books—Foster to Alberton inclusive.

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**STREZLECKI LINE.**

**1.** (a) Before leaving Strezlecki on the Up journey, the Hand Brakes must be put down on all trucks in which the Air Brake Apparatus is not in operation, and on as many other vehicles as the Driver may consider necessary for the proper control of the train. The Hand Brakes must be released at Triholm; see clause 7, Air Brake Orders, pages 603-604.

(b) The Guard, before leaving Koo-Wee-Rup, will be held responsible that his Van is equipped with at least four (4) Sprags; the Stationmaster, Koo-Wee-Rup, must keep a supply on hand.

(c) Unless special instructions are issued to the contrary, trucks fitted with pipes not operating Brake Blocks must not be allowed to run between Triholm and Strezlecki; such trucks must not be loaded for Stations beyond Triholm.

(d) Between Triholm and Strezlecki, when vehicles are attached by screw couplings, a space of two and a half inches must be left between the buffers. The Guard must adjust the couplings at Strezlecki on Up journey, and tighten them at Triholm.

(e) On Down journey, the Guard must, if there are vehicles on train tightly coupled on arrival at Triholm, ease them to the extent of two and a half inches.

**2. Private Siding for Water-washed Sand Co. Pty. Ltd.—**

(a) The above Siding, which consists of a Loop Siding, 500ft. between Catch Points, with accommodation for 20 (25ft.) trucks, is located 3 miles from Koo-Wee-Rup. A loading platform, 100ft. in length, is served by a Private Tramway, near the Level Crossing at the Down end of Siding.

(b) The Points in Main Line at each end of the Loop Siding are rodded to Catch Blades in the Siding and secured by Staff Locks.

(c) The Company is responsible for the movable chute, used in connection with their loading, being clear for the passage of Railway vehicles, and for the Gate in the Railway boundary fence being kept closed and locked when not otherwise required for tramway traffic.

(d) **Regulation 232.**—When it is necessary to run a special trip from Koo-Wee-Rup to clear loading from this Siding, permission is hereby granted (subject to the instructions contained on pages 472-479 inclusive), to run a local train in the Up or Down direction between Koo-Wee-Rup and the Siding without a Brake-van in the rear.

**3. Plowright's Siding.**—(a) The abovementioned Private Siding consists of a Loop Siding, 250 feet between Catch Points, with accommodation for 10 (25ft.) trucks. An Overhead Loading Apparatus is erected about the centre of Siding and served by a tramway. The Points in Main Line at each end of the Loop Siding are rodded to Catch Points in the Siding, and secured by Staff Locks.

(b) The Siding Holder is responsible for the chute of the Overhead Loading Apparatus being secured clear for the passage of railway vehicles and for the Gate in Railway boundary fence being kept closed and locked when not otherwise required for traffic.

The Siding Holder must accept delivery of inward trucks on any portion of the Siding and give delivery of outward trucks properly coupled together with doors closed and secured, and the trucks marshalled in as nearly as possible station order ready for a straight pick up, and clear of the chute at either Down or Up end according to destination.

### MITCHELL'S SIDING—WONTHACCI LINE.

**1.** Mitchell's Siding, at about 78 miles, between Anderson and Kildunda, is open for outwards coal traffic.

**2.** There are two Roads in the Siding; one is a Loading Road, and has a Coal Screen projecting across it. Care must be taken to see that engines do not foul the Screen. Empty trucks may be left in the dead-end, at the far end of the Siding from the entrance.

**3.** Empty trucks must be placed at the Siding by a Down Goods train, which must also clear any loaded for Down side Stations. Up Goods trains may work at the Siding as arranged by the Station-master, Dalyston. Trains must not work at the Siding after sunset.

**4.** Down trains approach the Siding on a descending grade of 1 in 66, and before the front portion of a train that requires to work at the Siding is uncoupled, the Guard must satisfy himself that the Van Brake has been put on securely, and that a sufficient number of vehicle Hand Brakes have been applied to prevent the possibility of the rear portion of the train moving away.

**5.** The Points in the Main Line and the Catch Points in the Siding are rodded together and worked by a lever, and the Points in the Main Line are secured by a Staff Lock, the Key of which is the Electric Staff for the Section.

**6.** The speed of any train or engine running over this Siding must not exceed 5 miles per hour.

## EASTERN AND SOUTH-EASTERN SECTIONS.

**STATE MINE.**

**Classification Siding.**—A train to Wonthaggi and a train from Wonthaggi must not be crossed at State Mine.

A switching engine in No. 3 Shaft Yard must not proceed towards State Mine until the Shunter in charge obtains permission from the Signaller there, by means of the telephone provided.

In the event of any switching movement being conducted from State Mine towards the No. 3 Shaft Yard, the Shunter in charge must protect the operation against any conflicting movement from opposite direction.

**MASTER KEY.**—A Master Key is kept at the State Mine to be used for releasing the Staff-locked Points which lead from the Up end of the Classification Sidings to the Main Line, should it be found, owing to a failure of the Instruments, that an Electric Staff cannot be obtained for this purpose. The Signaller on duty at the State Mine will be responsible for the safe custody of the Key, and particulars regarding its use must be entered in the Train Register Book.

**NOTICE BOARD.**—A Notice Board is erected on each side of the Line at the end of weighbridge nearest to the Classification Sidings. These Boards, which mark the point beyond which engines must not go, have the following notice painted thereon:—"ENGINES MUST NOT GO PAST THIS POINT."

Drivers, Guards, and Shunters are hereby instructed to see that this Notice is obeyed.

**WONTHAGGI.**

**1.** The Station is not open continuously, and when it is closed after dusk, the Station-master will arrange for the Home Signal to be lighted and left at the Proceed position.

**2.** When the Station is closed, the Driver of any engine, or the Driver of the front engine if two be coupled, working between the State Mine and Wonthaggi must be in possession of the Train Staff for the Section. An employe competent to work the Train Staff and Ticket System must accompany such engine or engines in each direction, and on arrival at Wonthaggi place the Home Signal to Stop, and keep it in that position while the engines are taking water, and place it to the Proceed position when the last engine (or engines) is quite ready to proceed on the return journey.

**3.** The employe referred to in clause 2 will be responsible for seeing that the engine or engines upon their return are shunted clear of the Main Line, and for handing the Staff back to the Signaller at the State Mine, and reporting to him as to whether the Section has been left clear and safe.

**4. Working of Trains between Wonthaggi and Eastern Area.**  
—(a) Unless instructions are issued to the contrary, every train or Engine must carry the Train Staff for the Section; with this exception, the Section, Wonthaggi—Eastern Area, will be worked under the Rules for working Single Lines of Railway by Train Staff and Ticket. See Appendix II., Book of Rules and Regulations, and the instructions supplementary thereto, pages 546-561 of this book.

**SPECIAL INSTRUCTIONS.**

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(b) There is an Up Home Signal for this Line at Wonthaggi, but at Eastern Area Fixed Signals are not provided.

(c) There is a falling grade in the Up direction between Eastern Area and Wonthaggi. A Dead-end Safety Siding, which leads off the Main Line, is provided at the Up end of the Yard at Eastern Area, the Points leading to which are Facing in the Up direction, and are normally set and secured for the Siding. Down trains must be stopped clear of the fouling point of this Siding until signalled forward by the Guard or Shunter, who must first attend to the Points. Guards of Up trains will be responsible for securing the Points after turning their train out.

(d) Vehicles, unless attached to an Engine, must not be allowed to stand on the Main Line outside of the Dead-end Safety Siding Points at Up end of Yard.

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## Suburban Section.

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### SOUTH KENSINGTON—ABATTOIRS LINE.

1. The Single Line from South Kensington Junction to the Abattoirs is worked under the Train Staff and Ticket System; unless special instructions are issued to the contrary, the Driver of every train or engine, travelling on the Line, must have possession of the Train Staff; see clause 15, page 559.

2. Any train working in the New Zealand Loan Company's Siding is prohibited from going out on the Abattoirs Line beyond Post No. 37 unless the Driver first receives a Green Hand Signal from the Signaller, and the latter must not give a Green Hand Signal to the Driver, if the Train Staff for the Abattoirs Line is away from the Signal-box.

3. When the Train Staff is away from the Signal-box, the Signaller at South Kensington Junction must not accept a Down Local Goods train for South Kensington unless there is sufficient room for such train to be placed in the Australian Mortgage Company's Sidings.

4. There are two Level Crossings on the Single Line, and when nearing either of them the Driver must sound the engine whistle in sufficient time to give due notice of the approach of his train.

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### SOUTH KENSINGTON AND FOOTSCRAY.

1. Should a Down Goods train be stopped from any cause between the Maribyrnong River Bridge and Footscray Junction, and the Driver is satisfied of the inability of the engine to take the whole of the train forward, he must, as quickly as possible, send his Fireman to notify the circumstances to the Signaller at South Kensington, using the telephone at Maribyrnong River Junction if that be the nearer, or to the Signaller at Footscray Junction, if that Box be the nearer.

2. The Signaller, South Kensington Junction, on receipt of such information from the Guard, Fireman, or the Signaller, Footscray Junction, must at once arrange for assistance being obtained from South Kensington Junction. (See No. 16 of the Double Line Block Rules, Appendix (iv.), Book of Rules and Regulations).

3. If assistance by an ordinary train or engine is not likely to be available at South Kensington within a reasonable time, the Signaller should at once make application to the Superintendent of Melbourne Yards for an engine.

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### MARIBYRNONG RIVER GOODS LINE.

1. (a) The abovementioned Lines are worked under the Rules for working Single Lines of Railway by the Train Staff and Ticket System, and in accordance with the following instructions.

(b) Whenever it is necessary for a second train or engine to enter on to the Line before the first engine has returned to South Kensington Junction, the Control Officer, Melbourne Yard, must so inform the Officer in charge of the Maribyrnong River Goods Line, and the Signaller at South Kensington Junction, and in such a case the first train or engine will travel on a Ticket, and the second on the Train Staff.

## SPECIAL INSTRUCTIONS.

(c) The Driver of the second engine proceeding from either end of the Section must be furnished with a "Notice of Train Ahead," see page 249, Book of Rules and Regulations.

2. The Officer in charge of the Line will be responsible for taking adequate measures for the protection of the trains or engines, and to have them stopped where required.

3. A Staff Master Key is provided, and will be in charge of the Officer in charge of the Goods Sidings, who will be responsible for its safe use. For working of Siding controlled by Special Locks, see pages 146-149.

### FOOTSCRAY—ANGLISS'S SIDING.

1. Angliss's Siding is connected with the Down Main Line at Footscray Junction.

2. When a train is working in this Siding, the Driver must approach the Buffer Stops at the South Kensington end, either from the Station or from the Freezing Works, with great caution, as the grade is a falling one of 1 in 40 to the Buffer Stops, and the Stops are about 30 feet above the ordinary ground level. The space between the Buffer Stops and the Points will hold ten medium trucks and the engine.

3. (a) There are no facilities for an engine to run around trucks in the Siding. When a train for Angliss's Siding arrives at Footscray the engine may run around the train on the Williamstown Line, provided it will not cause detention to other Goods or Passenger trains.

(b) If, when the train arrives, circumstances will not permit of the Williamstown Line being used for the engine to run around without detention to other trains it must be side-tracked to Angliss's Siding, and as soon as an opportunity offers, again brought to the Williamstown Line for the purpose of engine running around trucks; in the event of the side-tracking not being possible without detention to other trains, it must be sent on to West Footscray for engine to reverse, and returned from that Station.

(c) When after completing its work a train from Angliss's Siding is to proceed in the Down direction, the engine must draw the trucks from the Work's Siding and stop clear of the fouling point of No. 1 Road, and after the engine has set back clear on No. 1 the Guard or Shunter may then drop the trucks on to the Van at Dead-end of No. 1; owing to the heavy falling gradient (see clause 2) the Guard or Shunter must, before the engine is detached, see that a sufficient number of Hand Brakes are applied, and must exercise the necessary care to control vehicles dropped towards the Buffer Stops. If the train is to proceed in the Up direction the Van may be left secured clear of the Work's Siding in No. 1 Road, and when the work is completed and the Siding Signal is turned off the train may be pushed—the Van to be the leading vehicle—from the Siding to the Junction.

4. During daylight, when empties only are to be placed, the Guard or Shunter in charge of the train can do the work himself; but at all times during the hours of darkness, or whenever, during daylight,

## SUBURBAN SECTION.

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empties are to be placed, and loaded cleared, or vice versa, by the same trip, the Guard in charge of the train must be accompanied by an Assistant. One Scotch Block serves for all Sidings; it is fixed in the neck common to the three Sidings, and the Guard or Shunter, as the case may be, will be responsible for its proper security.

5. The Guard of each train conveying trucks to the Siding must hand waybills for all loaded trucks to the Station-master, Footscray. In respect of each truck placed at or removed from the Siding, the Guard must give the Station-master, Footscray, a list, showing:—(1) No. of truck; (2) whether the truck is loaded or empty, and in the case of a loaded truck, outward; (3) destination. If the Station be closed, list and waybills must be handed to the Signalman at Footscray Junction.

6. No loaded truck is to be removed from Footscray without a waybill; the Station-master must arrange with consignors to deliver the consignment notes to the Passenger Station Staff in time to permit the trucks being waybilled.

7. **Inwards and Outwards Trucks.**—The Station-master, Footscray, must keep a special truck book, showing the usual particulars, and, in addition, in respect of loaded trucks, the number of the waybill.

8. The Station-master, Footscray, must arrange for the return of Rolling Stock in the Siding to be taken before 7 a.m. daily, so that the trucks in the Siding at that time may be included in the Melbourne Yard Stock Return. The Superintendent of Melbourne Yards will receive all orders from the Siding for empty trucks, and for the removal of loaded trucks, and will be responsible for seeing that proper arrangements are made to work the Siding.

9. The consignment notes handed in at Footscray should show in each case the time for which clearance has been arranged, and the Station-master, Footscray, must exercise special care to see that the engine running to clear trucks is not delayed waiting for waybills. When the Station is closed, the waybills for outward trucks, which may be cleared during the night, are to be left with the Signalman.

10. Ordinary Goods trains must not work at the Siding.

### YARRAVILLE.

The Sidings worked from Yarraville "A" Box are unfenced, and before any shunting movement is conducted over the Level Crossing at Somerville Road the Guard or Shunter in charge must take steps to warn pedestrians, and see that animals and vehicles are kept clear. The Signalman must promptly report any neglect to comply with this instruction. A gong is provided at the Crossing, and the Signalman must sound the gong to give warning of any shunting movement.

### SPOTSWOOD.

1. The Public Siding leads off the Down Williamstown Line at Up end of the Station. A Works Siding leads off the Public Siding to Lennon's workshop, Robinson's workshop, the Melbourne Glass Bottle Company's works, the Metropolitan Board's works, and the Victorian Ammonia Company's works; each of these works has a short spur situated in the order named above on the Works Siding.



## SPECIAL INSTRUCTIONS.

**2.** The engine of the Newport local Goods train places inwards trucks for the Works Siding clear of the footpath at Lennon's Gate, just clear of the Catch Points, and removes the outwards trucks from the same place. A Notice Board is erected at a point beyond which the engine must not pass.

**3.** Trucks must not be loose shunted into any of the Sidings mentioned.

**4.** The Shunter in charge must protect the public traffic outside the Railway fence while shunting operations with the engine are in progress; and, before commencing to shunt, see that the track is clear, and that the trucks can be moved with safety.

### NEWPORT POWER STATION LINE.

**1.** This Line is worked under the Train Staff and Ticket System, and the Staff Section is Spotswood—Power House Yard. During the time that the Station-master or Assistant Station-Master, Spotswood, is off duty, the Driver of every train or engine travelling on the Line must have possession of the "Train Staff," see clause 15, page 559.

**2.** While the Station-master or Assistant Station-master is on duty at Spotswood, arrangements may be made, if necessary, for trains to be despatched on Ticket from Spotswood or Power House Yard.

**3.** When it is necessary for a train to be despatched on a Ticket from Spotswood, the Signalman at Spotswood and the Guard of the train must be instructed by the Officer-in-Charge, Spotswood. On arrival of the train complete in the Power House Yard, and the Home Signal has been placed to "Stop" in accordance with Clause 4 hereof, the Guard must telephone its arrival to Spotswood in accordance with clause 3 of the Supplementary Instructions for Train Staff and Ticket working, page 549, and make the necessary entries in the Train Register Book. The Guard will also be responsible for the protection of the train in accordance with the Rules. On arrival of the train carrying the Staff, the Guard of such train will be responsible for the Staff Working being carried out in accordance with Appendix II., Book of Rules and Regulations, and the Supplementary Instructions, pages 546-554, and before a train is permitted to leave the Power House Yard for Spotswood, the Guard must confer with the Officer-in-Charge, Spotswood, and obtain instructions from him regarding the working of traffic.

When a train travelling on Staff Ticket has been despatched from the Power House Yard to Spotswood, the Guard of the second Up train must, before handing over the Staff to the Driver, obtain the "Acre" message from the Signalman at Spotswood, and make the necessary entries in the Train Register Book.

**4.** A Down Home Signal is erected at the Power House Yard, and applies from the Single Line to the Yard. It is situated about 150 yards from the Gate of Power House Yard. The Station-master, Spotswood, must arrange for the Signal being lighted when necessary.

Except when otherwise arranged, there will be no one in charge of the Power House Yard; the Guard in charge of each train (or the competent Shunter, if a Guard does not accompany the train), must act as employe in charge (see clause 3 hereof).

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The Driver of each Down train must stop at the Home Signal, and the Guard or Shunter must go forward and ascertain the position at the Yard. When he has ascertained that everything is in order for the train to enter the Yard, he must open the Gate and place the Home Signal to the Proceed position. When the train has passed the Home Signal, it must again be placed to Stop.

Guards or Shunters before leaving must close the Gates, and see that the Home Signal is left at the Stop position.

**5.** Open Level Crossings exist at Hall-street (near Spotswood Station), and at Douglas-parade (near the Power Station), and Whistle Posts are provided for these Crossings.

**6.** (a) Material required for Permanent Way and Works and for the Power House may be accepted at all Goods Stations for conveyance to the Power Station, Spotswood.

(b) **QN Trucks.**— Unless specially authorised, “QN” trucks must not be run on this Line.

(c) **20-Ton I and Oil and 30-Ton QR Trucks.**— Two or more 20-Ton I or Oil Trucks or 30-Ton QR Trucks coupled together by means of Automatic couplings must not be permitted to run around the Loop at the Newport Power House. There is, however, no objection to the trucks so fitted being taken around this Loop as single units, provided they are coupled by means of the transition five link coupling to the draw gear of adjacent vehicles.

**7.** Station-master, Newport, to arrange for the placing of loaded and clearing of empty trucks from the Power House Yard, and to confer with the Station-master, Spotswood, re working of traffic.

The Control Officer, Melbourne Yard, must also advise the Station-master, Spotswood, when a train is going forward for the Power House Line.

**8.** The British Imperial Oil Coy.’s Siding must only be worked by a train travelling on a Train Staff.

**9.** A telephone cabin in which the Staff Box, Train Register Book, etc., will be kept, is located near the first set of Points at entrance to the Power House Yard. The Telephone Calls for the Power House Line are as follows:—

Power House . . . . .	One Long
Station-master, Spotswood ..	Two Long, One Short
Spotswood Signal-box .. ..	Two Short, One Long
Post 39A (Telephone Cabin)	Four Long
Shunters .. . . . . .	One Short, One Long

The Station-master, Spotswood, will arrange for the Train Register Book at Newport Power House being forwarded to the Block and Signal Inspector, Flinders-street, in accordance with clause 9, page 685.

Two Notice Boards are erected, one for each Siding, clear of the fouling points of the two Sidings at the Down end, with the following lettering:—“**ENGINES MUST NOT PASS THIS POST.**”

Drivers, Guards, and Shunters are hereby instructed to see that this Notice is obeyed.

## SPECIAL INSTRUCTIONS.

### NEWPORT GOODS YARD.

1. (a) Before any train is turned into the Newport Goods Yard the Signalman must obtain permission of the Yard Foreman or Shunter-in-charge, and the employe giving such permission must see that all Hand Points are set in the proper position for the train, and that proper measures are taken to control conflicting movements.

(b) No. 6 Road of Sidings "D," which adjoins the Down Williamstown Line, is equipped for accommodation of Electric trains that terminate at Newport Station, and, as far as practicable, that Road must be kept clear for the reception of such trains.

(c) If it should become necessary for any engine or train to enter on No. 6 Road at the Weighbridge end, the employe in charge of such movement must first obtain permission from the employe in charge at the Yard Foreman's Office, who, before giving such permission, must obtain the permission of the Signalman, Box "A."

(d) Particulars of each message and movement must be recorded in the Signalman's train Register Book and in the Book provided in the Yard Foreman's Office, and each such entry must be timed and initialled by the employe sending or receiving the message.

2. When entering the Newport Goods Yard, trains must not exceed a rate of speed of 5 miles per hour. The Driver must keep a good lookout, and be prepared to stop short of any obstruction that may exist on the Line.

3. (a) Six pairs of Points in the Goods Yard at the Down side of the Weighbridge are rodded up to a small Frame situate near the Weighbridge Office for the convenience of Shunters, but the Points are not interlocked.

(b) Drivers must not move their engines over any of the Sidings on the Down side of the Weighbridge unless they are accompanied by a Transportation Branch employe, who will be responsible for seeing that the Points are in their proper position. When a Shunter is on duty at the Weighbridge, his permission for the movement must be first obtained.

4. To enable the Signalman at Newport Junction to call the Yard Foreman or Shunter to the Telephone, an Electric Gong is provided near the Yard Foreman's Box, and another between that place and the Weighbridge.

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### NEWPORT WORKSHOPS PASSENGER YARDS Nos. 1 and 2.— WORKING OF PASSENGER TRAFFIC.

1. During the hours that the Workshops Yards are open for Passenger traffic, the Up and Down Lines leading to and from Passenger Yard No. 1, and Passenger Yard No. 2, must be strictly confined to Double Line working.

2. During the hours that the Workshops Yards are open for Passenger traffic, a Signalman will be on duty at the Ground Apparatus at Workshops Passenger Yard No. 1; and another will be on duty at the Signal-box at Workshops Passenger Yard No. 2. Each of these Signalmen must report at Newport Junction "A" Box at least 30 minutes

## SUBURBAN SECTION.

before the first Passenger train is due, and sign on in the Train Register Book there, as well as in that at their respective Boxes; each man must then walk along the Line to the Signal-box where he is to take duty. He must see that the Up and Down Lines and the Yard Roads are clear, and authority is hereby given to him to clear the Lines and Roads as expeditiously as possible, should any obstruction exist on them. Each Signalman must then place the Disc Signals leading from the Sidings to the Stop position, and also open the Catch Points leading therefrom for derailment. When each Signalman is quite satisfied that the Lines and necessary Roads are clear for Passenger traffic, and that no engine or vehicle can foul them, a telephone message to that effect must be sent to the Signalman at Newport Junction "A" Box, who must not permit a Passenger train to enter either of the Lines from the time the Signalmen sign on in his Train Register Book until the respective messages from the Signalmen at Workshops Passenger Yard No. 1, and Workshops Passenger Yard No. 2, are received, and he has seen that the Crosses have been removed from the Signals next in advance of his Box.

3. The Telephones at the Ground Apparatus at Workshops Passenger Yard No. 1, the Signal-box at the Workshops Passenger Yard No. 2, and at Newport Junction "A" Box, are on one circuit, the Code for which will be as under:—

Telephone Code.	Rings.	
	Short.	Long.
Ground Apparatus at Workshops Passenger Yard No. 1 ..	1	1
Signal box at Workshops Passenger Yard No. 2 .. . . .	2	1
Newport Junction "A" Box . . . . .	4	1

4. The messages sent and received at each Signal-box must be entered in the Train Register Book, together with the time. The Signalman using the telephone must satisfy himself as to which Signal-box he is in communication with.

5. If the Signalman at the Ground Apparatus Workshops Passenger Yard No. 1, or the Signalman at the Signal-box Workshops Passenger Yard No. 2 fails to secure communication with the Signalman at Newport Junction "A" Box in regard to the messages assuring him that the Lines are clear and safe to receive Passenger traffic, he must immediately go back himself and verbally assure the Signalman to that effect.

6. Before any Passenger train is allowed to run either to or from the Workshops Passenger Yard No. 1, the Signalman there must remove the Crosses from the Signal Arms on Semaphore Posts, Nos. 49, 52, 54, 56, and 51, and replace them (see Regulation 91) after the Passenger traffic has ceased. He will also require to close all the Catch Points when going off duty, and leave the Disc Signals on Posts Nos. 49A, 50, 53, and 55 at the Proceed position.

7. Before any Passenger train is allowed to run either to or from the Workshops Passenger Yard No. 2, the Signalman there must remove the Crosses from the Signal Arms on Semaphore Posts Nos. 1, 3, and 5, and replace them (see Regulation 91) after the Passenger traffic has ceased. He will also require to close all the Catch Points when going off duty, and leave the Disc Signal on Post 4 at the Proceed position.

## SPECIAL INSTRUCTIONS.

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**8.** All Hand Facing Points to Passenger trains running in the Down or Up direction must either be locked or securely held for the safe passage of trains.

**9.** In clear weather the speed of trains between Newport Junction and the Workshops Passenger Yard No. 1 and Passenger Yard No. 2 must not exceed a rate of **10** miles per hour, or during foggy weather **5** miles per hour.

**10.** The Station-master, Newport, must, through the Block and Signal Inspector, provide a competent Signalman to take charge of the Signalling at Workshops Passenger Yard No. 1 and Passenger Yard No. 2 during the running of Passenger traffic.

**11.** Between Newport Station and the Workshops Passenger Yards Nos. 1 and 2, Down and Up journey, the Signalman must not permit a train to go forward until the last vehicle of the preceding train has passed the Home Signal next in advance, and such Signal is at Stop.

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### NEWPORT.

#### Altona Car Sidings.

The entrance to these Sidings is governed by Hand Points leading from the Crossover Road between the Up Main Line and the Sunshine Loop. The Hand Points are normally secured by padlock, the key of which is in the possession of the Signalman at Box "A." The exits of the Car Sidings and from the Sunshine Loop are governed by Safety Points leading towards the Dead-end of the Sunshine Loop.

Movements to and from Newport Yard and the Altona Car Sidings will be subject to the following instructions:—

- (i.) When it is intended to run a train or engine to the Car Sidings, it must be accompanied by a Shunter, who must obtain from the Signalman the key of the Hand Points, for the purpose of turning the train or engine into the Sidings. Before any train is allowed to leave the Car Sidings the Shunter must see that the Hand Points are unlocked he must also secure the Points and return the key to the Signalman on each occasion immediately after use.
- (ii.) The Driver of any train or engine must not, unless he be in possession of the Train Staff for the Newport-Sunshine Loop, pass over the Hand Points leading to the Car Sidings until directed to do so by the Shunter at the Points.
- (iii.) During the absence of the Train Staff for the Newport-Sunshine Section, the Signalman at Box "A" must not allow any train or engine to proceed to the Car Sidings until he has verbally informed the Driver and Shunter that the Newport-Sunshine Section is occupied by a train; and during the time that any train or engine is in the Sidings the Signalman must not allow any train or engine to leave Newport for the Sunshine Loop until he has had a verbal understanding with the Shunter in charge of the train (or engine) then in the Car Sidings, and the

## SUBURBAN SECTION.

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Shunter will be responsible for seeing that the Hand Points are properly secured and the Line kept clear for the passage of the train. The Signaller must also verbally inform the Driver of the presence of an engine in the Sidings.

- (iv.) The Driver of any engine in the Car Sidings must not pass on to the Points leading to the Main Line or to the Dead-end of the Loop Line unless verbally directed to do so by the Shunter; and before giving such instructions to foul the Sunshine Loop Line, the Shunter must, in each case, protect the operations by taking the necessary steps to prevent any conflicting movement to or from the Sunshine Loop. This instruction to the Driver and Shunter applies whether the Disc Signal controlling the exit from the Car Sidings is turned off or otherwise.
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### NEWPORT WORKSHOPS—FIRE FIGHTING ARRANGEMENTS.

In order to ensure the expeditious transit of Fire Appliances to the Newport Workshops, a roadway has been formed across the track in a line from the Newport Fire Brigade Station to the Workshops. This roadway crosses the Running Lines and Sidings near the Weighbridge, midway between Newport and North Williamstown Stations; as far as possible, it must be kept clear of vehicles to allow the Fire Brigade to cross the Lines without delay. Two Notice Boards, as under, have been erected, one at each side of the roadway crossing referred to, lettered as follows:—"THIS CROSSING MUST BE KEPT CLEAR ON ALL OCCASIONS WHEN SHUNTING IS NOT IN ACTUAL OPERATION, FOR THE PASSAGE OF THE FIRE BRIGADE."

In the event of any outbreak of fire at the Workshops, the Leading Shunter or other employe in charge at the Weighbridge, must, immediately he becomes aware of the fact, arrange for all shunting operations over the roadway crossings to be suspended, and for the crossings, if foul, to be cleared with the utmost expedition.

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### NORTH WILLIAMSTOWN AND WILLIAMSTOWN BEACH.

**1. Grain Sidings.**—The Grain Sidings are situated on the Left-hand side of the Down Line between North Williamstown and Williamstown Beach Stations, and connected by Crossovers to the Down Line at Williamstown Beach Station. These Sidings are also connected with the Williamstown Line at North Williamstown, the Points being worked from the Signal-box.

**2. Loop Siding.**—A Loop Siding, between Williamstown Beach and North Williamstown leads off the Up Main Line at the Up end of Williamstown Beach Station, and a Disc Signal, on Post No. 67, controls the entrance of trains into the Loop. The Loop Siding is extended to a short Dead-end Siding at both ends, and is to be used for Engines

## SPECIAL INSTRUCTIONS.

or Goods trains, and in the Up direction only. The following instructions respecting the working of the Loop Siding must be observed when Williamstown Beach is open as a Block Post:—

- (i.) When an Up Goods train is approaching Williamstown Beach the Signalman there must, if North Williamstown cannot accept it on the Main Line, turn it into the Loop Siding.
- (ii.) The speed of the train must be reduced to a rate not exceeding five (5) miles per hour before the Signalman at Williamstown Beach exhibits the Signal for the train to enter the Loop. The Driver must then proceed by the Loop Siding at a rate of speed not exceeding five (5) miles per hour. Should any delay occur at Post No. 64A, Regulation 75 must be complied with. The Signalman at Williamstown Beach must not permit a train or engine or any vehicle to enter upon the Loop Siding without first advising the Signalman at North Williamstown, and the Signalman, North Williamstown, must advise the Signalman, Williamstown Beach, when each train or engine cleared the Loop Siding.
- (iii.) Whenever the Signalman at Williamstown Beach requires to turn a train or engine into the Loop Siding whilst another train or engine is already there, he must, after advising the Signalman at North Williamstown, stop the train and verbally instruct the Driver of the second train or engine as to the state of the Line ahead, a Green Flag by day and a Green Light by night, held steadily in the hand, being at the same time shown to the Driver and Guard.
- (iv.) The time of arrival and departure of Goods trains entering or leaving the Loop, and also particulars of any telephone messages that may pass between the Signalmen at North Williamstown and Williamstown Beach in respect of such trains must be shown in the Train Register Books, together with an explanatory note in the "Remarks" column giving the name of the train and the reason of any delay.
- (v.) Each train or engine running over the Loop Siding must carry the proper Train Signals, as prescribed in Regulations 149 to 153 inclusive.

*See page 688 for Instructions re Switching Out at Williamstown Beach whilst a train is in the Loop Siding.*

### WILLIAMSTOWN—WILLIAMSTOWN PIER.

1. (a) The Local Goods Siding, in the Section Williamstown—Williamstown Pier, is Staff Locked, and the Key is the Train Staff for the Section. No Driver must enter the Section without the Staff, and the Staff must be handed over to the Signalman immediately the train or engine returns; the times at which the Staff is delivered to, and returned by the Driver of any engine or train proceeding to or returning from the Siding must be recorded in the Train Register Book, Williamstown.

## SUBURBAN SECTION.

(b) **Shunting "Off" Passenger Trains.**— If, during the time the Signalman, at Williamstown Pier, is off duty, it is necessary to send an Off train from Williamstown to No. 1 Road at Pier Station, the following instructions must be observed:—

- (i.) Before leaving duty the Signalman at Pier Station must, provided the Line be clear to the Buffer Stops, lower the Down Home Signal to permit the train to enter on No. 1 Road.
- (ii.) The train, when proceeding to the Pier, must be accompanied by the Guard, who, on arrival on No. 1 Road, must replace the Home Signal to Danger, and collect the Staff from the Driver, which must be returned to the Signalman, Williamstown, by the Guard. Before returning the Staff to the Signalman, the Guard must see that the train has arrived complete, that the Home Signal Lamp is burning, and showing properly, that the Hand Brakes are applied at each end of the train, that the windows of all vehicles are closed, and that the doors of all cars and Vans are locked; the Tail Lamp must not be extinguished.
- (iii.) When it is required to put the train into service the Guard must obtain the Train Staff from the Signalman at Williamstown, and hand it to the Driver of the train at the Pier Station, and, when the train is ready, lower the Signal for the train to proceed towards Williamstown.
- (iv.) The time at which the Train Staff is received from and delivered to the Guard must be registered by the Signalman.

**2. Williamstown Pier**—THOMPSON'S SIDING—DDE class engines are prohibited from running on the curve at the entrance to Thompson's Siding.

## WORKING OF "A" SIDING, NEWPORT.

### Instructions for the Signalmen, Newport "A" and "B" Boxes.

**1.** When an Up Goods train or Light Engine is approaching or ready to depart from Newport "B" Signal-box, and Newport "A" cannot accept it on the Main Line, it may be turned into Siding "A" under the following instructions.

**2.** Before allowing the train or engine to enter the Siding, the Signalman at Newport "B" must obtain the permission of the Signalman at "A" Box, and the latter must, before giving such permission, assure himself that he can do so with safety. Each Signalman must enter a record across the figure line of the Train Register Book, showing the time the permission was given and received, and the Signalman at "A" Box must place a sleeve on the lever of the Points applying to trains entering the Siding at his end until it is necessary to reverse the lever to permit the train or engine to leave the Siding. When the train or engine is taken off the Siding, the Signalman at Newport "A" must promptly advise the Signalman at Newport "B," and an entry to that effect must be entered across the figure line of Train Register Book at each Box.



## SPECIAL INSTRUCTIONS.

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**3.** Whenever the Signalman at Newport "B" requires to turn a train or engine into Siding "A" before the previous train or engine has been taken off at "A" Box end, he must, in addition to complying with the preceding clause, stop the second train or engine, and verbally instruct the Driver that the Siding is occupied by a preceding train or engine; a Green flag by day and a Green light by night, must at the same time be shown to the Driver.

NOTE.—Engines running on this Siding at night must, in addition to the proper Head Lights, carry a Red Tail Signal.

**4.** The speed of the train must be reduced to a rate not exceeding five (5) miles per hour before the Signalman at Newport "B" exhibits the Fixed Signal for the train to enter the Siding, and this speed must not be exceeded while proceeding on the Siding.

**5.** Whenever there is a train or engine in "A" Siding the Signalman at "B" Box must place a sleeve on the Lever of the Fixed Signal applying to trains entering the Siding.

**6.** In the event of it being necessary to run an engine with or without a train to "B" Box via "A" Siding, or occupy the Siding at "A" Box end, the permission of the Signalman at "B" Box must first be obtained, and the precautions set out in the preceding clauses respecting Up movements on this Siding must be complied with.

**7.** The precautions set out in clauses 2 and 5 must also be complied with in the event of it being necessary to side track a Down Goods train in "A" Siding at "B" Box end; if necessary, clause 3 must also be observed, and the Guard of the Goods train must be verbally informed that the Siding is occupied by a preceding train or engine.

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### UP SOUTH-WESTERN GOODS TRAINS.—SHUNTING AT NEWPORT JUNCTION.

When trucks have to be detached from any Up South-Western train at Newport during the hours of the Passenger train service, the Guard must so inform the Station-master or the Signalman at Werribee, and the latter must at once advise the Signalman Newport Junction.

The Signalman Newport South must, before accepting any Goods train from Laverton during the hours of the Passenger service, obtain advice from the Signalman Newport as to how the train is to be dealt with in order to avoid delay to Passenger trains on the South-Western and Altona Lines.

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### AUSTRAL MEAT SIDING.

**1.** The Austral Meat Siding leads off the Running Line at Newport South. The Points are interlocked.

**2.** The shunting of trucks off Down trains into the Meat Siding is to be performed in the following manner:—

- (i.) The train must be stopped at the Signal-box, and, after it has been properly secured, the engine may be uncoupled and placed in Siding "A."

## SUBURBAN SECTION.

- (ii.) Trucks for the Siding may then be detached, and loose shunted past the Signal-box towards the Austral Meat Siding. When this has been done, the engine may be coupled on to and push the trucks into the Meat Siding. Before doing so, however, the Guard or Shunter must put down the Hand Brakes on the three trucks farthest from the engine, and ride on the leading one so that he may be in a position to signal to the Driver, as required.

3. When trucks which arrive by Local Special trains require to be loose shunted past the engine into the Meat Siding, the Guard must arrange for it to be done in the way laid down above.

### NEWPORT—SUNSHINE LOOP LINE.

Special Instructions respecting certain of the Sidings situated on this Line are shown hereunder:—

**Thomas' Mill Siding.**—A Notice Board is erected on each end of the verandah which covers the truck weighbridge at Thomas' Mill Siding. These Boards, which mark the point beyond which engines must not go, have the following notice painted thereon:—"ENGINES MUST NOT PASS THIS POINT." Drivers, Guards, and Shunters are hereby instructed to see that this order is obeyed.

1. **West Spotswood.**—WAY AND WORKS STORES DEPOT.—(a) The Siding of the above Depot crosses Melbourne Road Level Crossing adjacent to the Running Line, about  $\frac{1}{2}$  mile from Newport.

(b) Gates are provided to protect the Level Crossing on Main Line side of Siding only, and when it is necessary for trains to be shunted over the Level Crossing to or from the Workshops Siding the Guard or Shunter in charge of the movement must see that the Gates are closed to protect one side, and must also precede the engine or leading vehicle, as the case may be, in order to see that vehicles, pedestrians and animals are kept clear on the side where Gates are not provided.

(c) When a Light Engine, unaccompanied by a Guard or Shunter, is running to or from the Workshop Siding, the Fireman must act as laid down for the Guard or Shunter in Clause 2.

**Imperial Flour-storage Sheds.**—No engine is to be allowed to enter these Sheds. Notice Boards bearing the following:—"ENGINES MUST NOT PASS THIS POST"—are erected outside the Sheds.

**"Russell's Siding, Little Brooklyn, and Hay's Sidings.**—No engine is to be allowed to pass on to these Sidings.

**Angliss's Quarry Siding.**—A Notice Board bearing the following—"ENGINES MUST NOT PASS THIS POST"—is situate at a point 11 chains 70 links from the Facing Points in the Main Line. Drivers, Guards, and Shunters are to act accordingly.

**Brooklyn "A"—Prosser's Siding—Borthwick's Siding.—**  
**Brooklyn "A."**—Annett Locks are provided on the Up and Down Home Signal levers, with a duplicate Lock on the Points at the Up end of Prosser's Siding. When the key is absent, the Home Signals are held at the Stop position.

## SPECIAL INSTRUCTIONS.

**PROSSER'S SIDING.**—The Facing Points in the Main Line, at the Up (Newport) end, are rodded to a Catch-blade in the Siding, and secured with an Annett Lock, the key of which is normally secured in a duplicate lock on the Up or Down Home Signal lever at Brooklyn "A." The Facing Points in the Main Line at Down (Sunshine) end are rodded to a Catch-blade in the Siding, and secured by a Tablet Lock.

**BORTHWICK'S SIDING.** — The Facing Points in the Main Line are rodded to a Derail in the Siding, and secured by a Tablet Lock.

**Commonwealth Quarry Company's Siding.**—Trucks placed in this Siding must be pushed beyond the Hoppers, but the engine must not be allowed to foul the Hoppers. Not more than twenty-five empty trucks are to be placed at any one time.

The Points in the Main Line leading to the Siding (which are facing for trains going in the Newport direction) are rodded to Catch Points in the Siding and worked by a lever. The Points are secured by Tablet Lock, the key for which is the Train Tablet for the Section Brooklyn "B"—Sunshine.

A Notice Board bearing the following—"Engines must not pass this Post"—is erected adjacent to the Stonecrusher. Drivers, Guards and Shunters are to act accordingly; the empty trucks must be placed at this point, and the loaded made available at a point about 300 yards inside the Catch Points.

**Williams' Quarry Siding and Melbourne Quarries Pty. Ltd.**—The above Sidings lead off the Main Line at  $9\frac{3}{4}$  miles from Melbourne (via Newport) and  $9\frac{1}{2}$  miles (via Sunshine).

The Points in Main Line are rodded to a catch blade in Siding, and secured by a Tablet Lock.

**WILLIAMS' SIDING.**—Williams' Siding leads off the Spur Line 1100 feet from the Points in the Main Line, and will be worked under existing operating conditions. A Notice Board lettered "ENGINES MUST NOT PASS THIS POST" is fixed near the Hoppers, which are erected 800 feet from the Turnout.

**MELBOURNE QUARRIES' SIDING.** — From the turnout to Williams' Siding the Melbourne Quarries' Siding Line extends as a Single Siding for 600 feet, and then branches to two Dead-end Sidings, each 1100 feet in length. Crushers and Hoppers are erected about midway in these Dead-end Sidings. A Notice Board lettered "ENGINES MUST NOT PASS THIS POST" is erected on Main Line side of the Hoppers.

Scotch blocks are provided at fouling points of Williams' and Melbourne Quarries Sidings. The grades in Quarries Sidings are 1 in 850, rising from Scotch blocks to entrance to Dead-end Sidings, and thence 1 in 200, rising to Buffer Stops.

The Melbourne Quarries Pty. Ltd. will accept delivery of inward trucks on one or other of the Dead-end Sidings, and give delivery of outward trucks properly coupled together with doors securely fastened and ready for a straight pick up, first truck out to be on Main Line Side of Notice Board.

## SUBURBAN SECTION.

**WILLIAMSTOWN RACECOURSE AND ALTONA BEACH LINE.**

Altona Beach is worked as a Staff Station under the Train Staff and Ticket System, and traffic between Newport and Altona Beach is worked in accordance with the following arrangements and instructions, which must be noted and observed by all concerned:—

- (i.) The Single Line between Newport South Junction and Altona Beach is ordinarily worked as one Section. Williamstown Racecourse being an intermediate (non-staff) Station; unless special instructions are issued to the contrary, the Driver of every train or engine, travelling on the Line, must have possession of the Train Staff; see clause 15, page 559.

*[Special instructions will be issued by the General Superintendent of Transportation, when necessary to work Race traffic between Newport and Williamstown Racecourse.]*

- (ii.) The Line between Williamstown Racecourse and Altona Beach (McBain-street) is only suitable for "DD" or lighter class engines, and the maximum rate of speed must not exceed 20 miles per hour. There is no Turntable provided.

Engines must not be permitted to go beyond McBain-street Crossing, which is situated about 60 yards ahead of the Trailing Points at the Down end of the Loop Siding.

Inwards trucks must be placed just inside the Scotch Block at McBain-street, and outwards trucks made available at this point by the Altona Coal Company, who must arrange their own haulage.

- (iii.) At Williamstown Racecourse, the interlocked Points leading to the Altona Beach Line, including the Down Facing Hand Points, are secured to lie for the Altona Beach Line, and the Up Facing Points in the Main Line leading to Siding "C," set and spiked for the Newport Line. The Fixed Signals at the Racecourse applicable to or from Altona Beach Line, and the Fixed Signals at the intermediate Levers "A," "B," and "C," between Newport South and the Racecourse are crossed as per Regulation 91.

- (iv.) At Altona Beach, a Loop Siding, 600 feet in the clear, is provided. The Points in the Main Line at the Up end of the Station are rodded to a Derail in the Loop, and worked by a lever situate near the Points in the Main Line, and are secured by a Staff Lock. Fixed Signals are not provided, but a Point Indicator works with the Derail.

The Driver of the engine running round its train via the Loop must stop before reaching the Derail, and arrange for his Fireman to go forward and work the Points as required, in accordance with the Instructions contained in pages 146-149.

The Guard of each train must act as Station-master at Altona, and make the necessary entries in the Train Register Book. He must also arrange for the lighting of the Point Indicator, attached to the Derail, during darkness or foggy weather.

## SPECIAL INSTRUCTIONS.

**WEST FOOTSCRAY.**

**1. GOODS SIDING.**—(a) A two-lever Auxiliary Frame is situated about 425 yards on the Down side of the Station; one lever works the Cross-over Points which lead to and from the Down Main Line and the Siding, and the other the Disc Signal on Post No. 19. This Signal applies from the Siding to the Down Main Line towards Post No. 20.

(b) The levers in the Auxiliary Frame are secured by an Annett Lock, the key of which is normally secured in a duplicate lock on the Interlocking Frame at the Station; when the key is removed from the duplicate lock the lever of the Home Signal (post No. 16) is locked in its normal position.

(c) No train or engine is permitted to run on the Down Main Line between the Auxiliary Frame and the Station unless the Signaller has issued a Wrong Line Order authorising the movement, vide Regulation 244.

(d) The Guard, Shunter, or other authorised employe who works the Auxiliary Frame must pull over the Point lever smartly and see that the catch is firmly down in the notch, and that it is so kept until the train or engine has passed. The Disc Signal which controls train movements out of the Siding must not be placed at Stop until the whole of the train is clear of the Cross-over.

**2. SCHUTT'S SIDING.**—This Siding, connecting No. 1 Siding at the Down end of Yard with Schutt's Chaff Mill, is available for use for consignments, in truck loads only. A Loop Siding to hold eight trucks is also provided.

Inward trucks must be placed within the Scotch Blocks on either the Siding or the Loop and outward trucks made available at the same point.

Notice Boards lettered, "ENGINES MUST NOT PASS THIS POST," are provided on these Sidings.

**TOTTENHAM GRAVITATION YARDS.**

**1.** (a) The Tottenham Gravitation Yards are situated on the East side of the Northern Line. The Yards between Sunshine and West Footscray consist of—five Departure Roads, eight First Classification Roads, thirteen Second Classification Roads, and three Arrival Roads. A Running Down Line (the extreme left-hand Road) from West Footscray to Sunshine, and an Up Running Line (extreme left-hand Road) from Sunshine to the entrance of Arrival Roads at the northern end, and from the northern end of the First Classification Sidings to West Footscray.

(b) A Down Home Signal is erected clear of the fouling point of the Down Running Road, and the turnout from the Second Classification group of Sidings.

An Up Home Signal is erected clear of the fouling point of the Turnout from the Up end of the first Classification Sidings and the Up Running Road.

A Disc Signal is provided to control the movements of trains from the Up Running Line through the Departure Siding neck towards Post 17.

These Signals are worked from quadrants near the Shunter's Cabin.

Before permitting a train or engine to cross from a Siding to a Running Line, where a Fixed Signal is provided to protect such movement,

## SUBURBAN SECTION.

the Guard or Shunter in charge must see that the Signal is at the Stop position.

(c) A Double Track Truck Weighbridge is provided in the First Classification Sidings. Disc Signals are provided at West Footscray and Sunshine, controlling the entrance to, and exit from, the Yards.

**2.** (a) When the Fixed Signal is displayed for a train or engine to enter the Yard from either West Footscray or Sunshine end, the Driver must understand that he must keep a sharp lookout for Hand or Fixed Signals whilst passing through the Yard, and the speed of the train or engine must be limited to the distance the Driver can see ahead, and must not exceed a speed of Fifteen (15) miles per hour.

(b) The Signalman at West Footscray or Sunshine must inform the person in charge of the Gravitation Yards, and also the Signalman at the opposite end of the Yards, whenever a train or engine is turned into the Yard, giving him the name and description of such train.

(c) Up Goods trains from the Northern or North-West Lines having loading to put off at Sunshine may be sent via the Gravitation Yards from Sunshine, and the loading placed in the First Classification Sidings. Down Northern or North-Western Goods trains may be similarly dealt with at West Footscray for the purpose of picking up such loading.

(d) Guards and Shunters must understand that the permission given for trains to enter the Yards is for the one journey only, and the train must not be permitted to return until authority is first obtained from the Officer-in-Charge of the Yards.

**3.** (a) When it is necessary for a train to proceed from the Gravitation Yards towards West Footscray, the Officer-in-Charge at the Yards must first confer with the Signalman at West Footscray and obtain his authority for the movement. After granting permission for the movement, the Signalman must not permit a conflicting movement to or from the "Departure Sidings" until he has ascertained from the Shunter in charge that the Disc Signal controlling the movements of trains towards Post 17 is at the Stop position, and instructed the Shunter in charge that it must be maintained at Stop until the conflicting movement is completed.

(b) Before permitting a train to proceed from the Yard towards Sunshine, the person in charge must confer with the Signalman and obtain his permission for the movement.

(c) The particulars of messages sent and received, together with the time, also the time of Departure and Arrival of trains, must be entered across the figure line in the Train Register Book at the respective Stations.

(d) The Block and Signal Inspector, Flinders-street, to provide two Train Register Books for use at Tottenham Gravitation Yards, to be used alternately each week, the book containing the previous week's entries is to be forwarded to the Block and Signal Inspector, as set out in clause 9, page —.

**4.** (a) The speed of trains on any portion of the Gravitation Yards must be limited to the distance the Driver can see ahead and must not exceed a maximum of 15 miles per hour.

(i.) Guards and Shunters must understand that a train or engine must not run from an intermediate group of Sidings via the

**SPECIAL INSTRUCTIONS.**

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Up or Down Running Line without permission being obtained from the Officer in charge of the Gravitation Yards or the Signalman at West Footscray for the Up Line, or the Signalman at Sunshine for the Down Line.

- (ii.) Engines working in any group of Sidings must not be allowed to foul the Up or Down Running Line, unless such movement is protected by a Fixed Signal or by Hand Signals and Detonators, in accordance with the Regulations.
- (iii.) The Guard or Shunter of any engine working in the Arrival Roads must not foul the Up Running Line at the North end of such Arrival Roads. Engines or trains must not be permitted to depart for Sunshine from the North end of the Arrival Roads via the connection with the Down Running Line.
- (iv.) The Points forming Crossovers between the Up and Down Running Lines at Sunshine end have been spiked to lie for Running Lines, and must not be unspiked, except in the case of accident or emergency, without the authority of the General Superintendent of Transportation.

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**SUNSHINE.**

1. A Shunting Engine, the property of the Sunshine Harvester Company, is employed daily (Sundays excepted) in the Company's Siding at Sunshine. Except by the special permission of the Signalman, Sunshine (who must adopt the necessary precautions for the safety of the movement), this engine must not be allowed to pass Post No. 42 (towards Dead-end extension) when working in Siding "C." The Shunter in charge of the engine must proceed to the Signal-box and obtain the necessary permission. Under no circumstances must this engine be allowed to foul the Main Line.

## SUBURBAN SECTION.

2. The Signalman coming on duty must ascertain where the engine is working, and the time during which it is likely to be employed, and the Signalman relieved must give the necessary information on these matters.

3. During the time that the Company's engine is working in the Sidings, no Departmental engine or train must be allowed to enter upon Siding "C" without the Signalman first sending the Guard, Shunter, or some other competent employe, to ascertain the whereabouts of the Company's engine, and to make such arrangements as will prevent the movements of one engine from interfering with those of the other. This course must also be followed in any case where there is doubt as to whether the Company's engine is working or not.

4. The Level Crossing over No. 5 Road (Shed Road) Sunshine, is not protected by gates, and before an engine or vehicle is permitted to foul the Crossing the employe in charge of the shunting must see that the Crossing is clear. During the whole course of the shunting operations over the Crossing, to or from No. 5 Road (Shed Road) and Sidings "A," the employe mentioned will be responsible for seeing that vehicular and pedestrian traffic is kept clear.

5. On Saturday night the Station-master or person in charge at Woodend must telephone the time of departure of the last Up Goods train to Macedon. The Station-master or person in charge, Macedon, must wire this information to the Signalman at Sunshine, and the latter must arrange for word to be passed along by telephone to the Boxes in advance.

### ANDERSON STREET LEVEL CROSSING.

(Between Sunshine and Albion.)

1. (a) A Wig-Wag Signal is in use at the above Crossing. Up and Down Disc Signals Nos. 44B and 44C, operated from quadrants adjacent to the Crossing, are also provided. The Disc Signals control the movements of trains on the Shunting Road only, and are worked by the Shunter or Guard in charge of such movements. The quadrants are secured in the normal position by Carriage Locks, and, in this connection, the Officer in charge at Sunshine must arrange for the Shunters concerned being supplied with a Carriage Key.

(b) The Disc Signals must be kept in the "Stop" position, and only placed to "Proceed" when necessary to perform a movement over the Crossing via the Shunting Road, and on completion the Disc Signal must be immediately restored to the "Stop" position and the operating lever locked normal by means of the Carriage Lock provided.

2. The Wig-Wag Signal operates for Up Main Line trains in the usual way, but for Down Main Line trains it operates in conjunction with the Down Starting Signal for Sunshine. The Wig-Wag Signal will not operate for Down Main Line trains until the Down Starting Signal for Sunshine is placed at "Proceed"; the object being to prevent the Wig-Wag Signal operating whilst a train is delayed at the Starting Signal waiting "Line Clear."



## SPECIAL INSTRUCTIONS.

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In respect to the movements performed via the Shunting Road (Up or Down) the Wig-Wag Signal will operate immediately the Disc Signal is placed to "Proceed," and continue to function until such Signal is placed to "Stop."

### **ALBION QUARRY SIDING AND ALBION SUBSTATION SIDING.**

Not more than one engine is permitted to work on the Albion Quarries Siding at the same time. This Siding leads from the Sunshine Yard.

The Substation Siding leads off the Albion Quarries Siding. It is a Dead-end Siding with Facing Points in the Down direction.

### **ST. ALBANS.**

**1. Quarry Company's Sidings.**— The abovenamed Sidings lead off the Goods Yard at St. Albans. The tracks consist of two Dead-end Sidings, running parallel with the Main Line, each capable of holding 15 trucks and a Siding leading to the Stone Quarries. The Dead-end Siding nearest Main Line is No. 1, and the adjacent Siding is No. 2. The Road leading towards the Quarries is "Quarry Siding." Scotch Blocks are provided for the security of trucks standing in the Sidings.

**2.** Notice Boards, lettered "ENGINES MUST NOT PASS THIS POST," are erected near the Scotch Blocks in No. 1 and No. 2 Sidings, and one lettered "ENGINES MUST NOT PASS THIS BOARD ON ROAD TO QUARRY" at the Points leading to "Quarry Siding."

**3.** Inward trucks must be taken delivery of by Siding holders in Siding No. 2, and outward trucks placed properly marshalled in destination order, and coupled up, doors closed and secured, and first truck out opposite Notice Board in Siding No. 1.

**4.** These Sidings will be worked at a suitable time during daylight only.

### **COBURG LINE.**

#### **(Working of Level Crossings.)**

**1.** An Assistant Guard will accompany No. 2 Down Goods train to and from Coburg (or Batman) and must ride on the train engine.

**2.** (a) In addition to assisting in the general work of the Goods train, the Assistant Guard must attend to the Gates of the Level Crossings specified in clause 3 hereof; these Gates will be locked across the tracks immediately after the passage of the last Passenger train for the day until the first Passenger train in the morning, and the hours of the Gatekeepers at the Crossings will be arranged accordingly.

The Gatekeepers will be in attendance at all crossings not specified in clause 3.

(b) Duplicate keys of the locks by which the Gates are to be secured are kept at the office of the Superintendent of Melbourne Yards, and it is the duty of the Guard in charge of the Coburg Goods train to obtain and sign for two keys, hand one to his Assistant and retain the other; he must also see that his Assistant understands these instructions.

## SUBURBAN SECTION.

**3.** The Level Crossings referred to above are shown hereunder:—

Level Crossings.	Locality.	By Whom Worked.
Park-street Brunswick-road Barkley-street	{ Between Royal Park & South Brunswick	{ Gatekeepers will be in attendance for all Down Goods trains and may go off duty after the last Down Goods has passed. Clause 6 will be in operation for the return of Banking engines.
Dawson-street Albert-street Reynard's-road	{ Between S. Brunswick and Brunswick Between Moreland and Coburg	
Bell-street O'Hea-road	{ Between Coburg and Batman	{ These Gates are to be worked by the Train Crew as laid down in clause 5 hereof.

**4.** When the appointed time for going off duty has arrived, the Gatekeepers at the Level Crossings specified above, must, if no train be approaching, place all Gates across the Line and secure them by means of the chains and padlocks specially provided for that purpose. Before leaving his post, the Gatekeeper must see that there is sufficient oil in the Gate Lamp (or Lamps), and that the Red Light of the Lamp (or Lamps) will be clearly visible to the Driver of any approaching train. Gatekeepers will be responsible for the safe custody of the chains, padlocks and keys.

**5.** (a) When the Goods train is approaching any of the Level Crossings specified above, the Assistant Guard must remind the Engine-driver that the Gates are across the Line, and the Driver must be prepared to stop clear of each Level Crossing in order that the Assistant Guard may attend to Gates. After closing each Gate against vehicular traffic, the Assistant Guard must exhibit a Green Light as the signal for the train to pass over the Crossing and rejoin the engine. The rear Guard must open the Gates for vehicular traffic and secure them in that position by the chain and padlock.

(b) The Driver must not proceed on to any Level Crossing until he receives the Green Light from the Assistant Guard on the Crossing and after having passed over the Crossing the Driver must stop to enable the Assistant Guard to re-join the engine and must not start until he receives a Green Hand Signal from the rear Guard.

**6.** When there is a second engine attached to a Goods train, the Guard must obtain three keys from the office of the Superintendent of Melbourne Yards and hand two keys to the Assistant Guard; when the assisting engine is detached to return to Melbourne the Assistant Guard must hand one of the keys to the Driver, who must use it to open the

## SPECIAL INSTRUCTIONS.

Gates, and on arrival at Dudley-street Signal-box the engine must be stopped and the key handed to the Signalman, who must arrange for its prompt return to the Superintendent's office.

### SOUTH BRUNSWICK.

Engines are not permitted to run over Hoffman's Siding at South Brunswick, and a Notice Board is erected on a Post at the entrance to the Siding, with the following notice painted thereon:—"ENGINES MUST NOT PASS THIS POST."

Driver, Guards and Shunters are hereby instructed to see that this notice is obeyed.

### SHUNTING OF VEHICLES AT MORELAND.

1. There is a heavy falling grade from the Main Line to Up end of Sidings at Moreland, and when it is necessary to loose shunt trucks into the Sidings, the following precautions must be adopted:—

- (i.) In dropping trucks from Down Main Line to Sidings, only sufficient force must be used by engine to carry trucks over the Level Crossing at Moreland-road.
- (ii.) The employe whose duty it is to attend to the dropping of brakes must meet the trucks at the Level Crossing, and steady them down from there into the Sidings.
- (iii.) The employe cutting off trucks must ascertain the side on which the brakes are situated, and prior to giving the "Move Back" signal to the Driver, inform the employe attending brakes on which side the majority of brakes are located, by calling out the number of brakes on each side, i.e., "Two Down side, Three Up side," as the case may be, and satisfy himself that the employe has received the information.
- (iv.) The employe engaged in dropping brakes must acknowledge the information by repeating it.

### ROYAL PARK-RESERVOIR LINE.

#### Working of Level Crossings.

1. An Assistant Guard will accompany the night Goods train to and from Reservoir, and must ride on the train engine.

2. (a) In addition to assisting in the general work of the Goods train, the Assistant Guard must attend to the Gates of certain of the Level Crossings and the Signalman at Northcote and Thornbury will attend to others (see clause 3 hereof). These Gates will be locked across the tracks immediately after the passage of the last passenger train for the day until the first passenger train in the morning, and the hours of the Gatekeepers at the Crossings are arranged accordingly.

(b) Duplicate keys of the locks by which the Gates are to be secured are kept at the office of the Superintendent of Melbourne Yards, and it is the duty of the Guard in charge of the Reservoir Goods train to obtain and sign for two keys, and hand one to his Assistant and retain the other; he must also see that his Assistant understands these instructions.

## SUBURBAN SECTION.

**3.** The Level Crossings referred to above, and the employes who are responsible for working them, are shown hereunder:—

Level Crossings	Locality.	By Whom Worked.
Arthurton-rd.	Down side of Northcote	Signalman, Northcote
Hutton-street	Up „ Thornbury	Signalman, Thornbury
Beaver-road	Down „ Arthurton-road	} These Gates are to be worked by the Train crew as laid down in clause 5 hereof.
Oakover-road	Up „ Bell	
Cramer-street	Down „ Preston	
Murray-road	Up „ Cramer-st	} For Down trains, by Yard Porter; Up trains, by train crew—see clauses 4 and 5.
Bowen-crescent	Up „ side of North Carlton	

**4.** (a) The Yard Porter, North Fitzroy, must proceed to Bowen-crescent by the last Passenger train, and attend to the Gates until the passage of the Down Goods train; the Gatekeeper, Bowen-crescent, may go off duty on arrival of the Yard Porter. A duplicate key for the Gates is in the custody of the Yard Porter, and an emergency key is in the custody of the Station-master, North Fitzroy.

After the Goods has passed clear of the Gates the Driver must stop and the Yard Porter will open the Gates for vehicular traffic and lock them in that position; he must then accompany the train to North Fitzroy. The Driver after stopping must not again proceed until he receives a Green Hand-signal from the Guard.

(b) When the appointed time for going off duty has arrived, the Gatekeepers at the Level Crossings specified above must, if no train be approaching, place all Gates across the Line and secure them by means of the chains and padlocks specially provided for that purpose. Before leaving his post, the Gatekeeper must see that there is sufficient oil in the Gate Lamp (or Lamps), and that the Red Light of the Lamp (or Lamps) will be clearly visible to the Driver of any approaching train. Gatekeepers are responsible for the safe custody of the chains, padlocks and keys.

(c) At Arthurton-road and Hutton-street the Gatekeepers, after securing the Gates as laid down in clause 4 (a) hereof, must hand the keys to the Signalman and the Signalman will then become responsible for working the Gates according to requirements; he must apply sleeves to the Home Signals immediately on receipt of the key from the Gatekeeper.

**5.** (a) When the train is approaching any of the Level Crossings specified above, the Assistant Guard must remind the Engine-driver that the Gates are across the Line, and the Driver must be prepared to stop clear of each Level Crossing in order that the Assistant Guard may

## SPECIAL INSTRUCTIONS.

attend to Gates. After closing each Gate against vehicular traffic, the Assistant Guard must exhibit a Green Light as the Signal for the train to pass over the Crossing and rejoin the engine. The rear Guard must open the Gates for vehicular traffic and secure them in that position by the chain and padlock.

(b) The Driver must not proceed on to any level crossing until he receives the Green Light from the Assistant Guard on the Crossing, and after having passed over the Crossing the Driver must stop to enable the Assistant Guard to re-join the engine, and must not start until he receives a Green Hand Signal from the rear Guard.

(c) In the event of the train being ready to depart on the return journey from North Fitzroy before 5.30 a.m., the Assistant Guard must hand the keys to the Driver. The Driver must bring his train to a stand before reaching the Gates at Bowen-crescent and instruct his Fireman to unlock and open the Gates, firmly securing them in that position. The Fireman must leave the key in the lock and rejoin the engine. The Driver must then draw his train forward clear of the Gates and stop until he receives a Green Hand-signal from the Guard.

When the train has drawn clear of the Gates the Guard must open them for road traffic and securely lock them in that position, taking the keys with him, he must then give the Driver a Green Hand-signal for the train to proceed.

6. When there is a second engine attached to a Goods train on these lines, the Guard must obtain three keys from the office of the Superintendent, Melbourne Yards, and hand them to the Assistant Guard, the latter must, when the second engine is detached to return to Melbourne, hand one of the keys to the Driver, who is to use it to open the Gates on the return journey as laid down above for the Assistant Guard, and on arrival at Dudley-street Box the engine must be stopped, and the key handed to the Signaller, who must arrange for the prompt return of the key to the office of the Superintendent, Melbourne Yards.

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### ROYAL PARK AND NORTH FITZROY.

When the Down Victoria Park or Heidelberg Goods train has no loading to put off at North Fitzroy, the Guard, prior to reaching Royal Park Station, must so inform the Driver, and the Driver when passing this Station must give 2-2 short sounds on the engine whistle. The Signaller there must accept the whistling signal as an intimation that there are no trucks on the train for North Fitzroy, and send on the information to North Fitzroy "A" Box. Arrangements must then be made, if reasonably practicable, to give the Goods train a through run.

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### FITZROY LINE.

1. **Train Staff.**—The Signaller at "A" Box is responsible for the working of Trains under the Train Staff and Ticket System on the Fitzroy Line; unless Special instructions are issued to the contrary, the Driver of every train or engine, travelling on the Line, must have possession of the Train Staff; see clause 15, page 559.

## SUBURBAN SECTION.

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**2. Level Crossings.**—The keys of the Level Crossing Gates must be kept in the Station-master's office, North Fitzroy. When necessary for a train to proceed to Fitzroy, the Station-master, North Fitzroy, must arrange for a Porter to accompany each Goods train on both the Down and Up journey. The Porter must ride on the engine, and instruct the Driver where to stop. He must also prevent any pedestrian, or animal, or vehicle from passing over the Level Crossing after he has given the Driver a Signal to proceed. The train must stop after passing clear of each Crossing, and the Guard must see that the Gates are properly locked across the rails.

The Driver must not proceed over any Crossing until he receives a Hand Signal from the Porter. He must further satisfy himself that the Line is clear, and keep a good look-out along the Line while the train is in motion.

**3.** On the Down journey, the train must be stopped clear of the Points leading into the Fitzroy Yard, and must not be moved forward until instructions are received from the Station-master or person in charge.

**4. Up Goods Trains Not to Stand Foul of the Level Crossing at St. George's Road.**—When an Up Goods train is ready to depart from Fitzroy, the Officer-in-Charge there must in every case where the length of the train exceeds 20 vehicles confer with the Signalman, North Fitzroy, by telephone, and obtain his permission before allowing such Goods train to draw forward towards the Home Signal Post 34. The Signalman, North Fitzroy, must not give permission for the train to be brought forward until he is in a position to lower the Home Signal on Post 34, and thus prevent unnecessary delay to the road traffic. The Officer-in-Charge must also inform the Signalman what work (if any) the Goods train has to do at North Fitzroy.

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### NORTH FITZROY.

**1. St. George's Road.**—(a) Two-position Fixed (Light) Signals—one on each side of the Railway Line—are provided to govern movements of Tramway Cars over the Railway Line at the St. George's-road Level Crossing, North Fitzroy. Grip Slot bolts are also provided on approach side of Gates in each direction; these bolts work in conjunction with the Gates, so that when the Gates are closed against Tramway traffic, the bolts are across the Tramway Grip Slot, and thus prevent tram cars fouling the Gate or Level Crossing.

(b) The Fixed (Light) Signals are worked by separate levers, which are interlocked with the Gates. See also clause 1, page 220.

**North Fitzroy Substation.**—The Siding leading to the Sub-station leads off Siding "A" in the Goods Yard, and passes over Brunswick-street outside the Interlocked Gates. Before any train or engine is permitted to cross the street from either side, the Guard or other employe in charge of the shunting must see that vehicular and pedestrian traffic is kept clear during the time the street is fouled by the train or engine movement.

## SPECIAL INSTRUCTIONS.

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### NORTHCOTE LOOP LINE.

1. Three-axled vehicles with a wheel base exceeding 15 feet 6 inches must not be allowed to run over the Northcote Loop Line. The following are the numbers and classes of vehicles to which this instruction applies:—

**"X" Class Vehicles.**—1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 45, 46, 47, 48, 49, 50, 51, 52, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82.

**"XY" Class Vehicles.**—1, 2, 3, 4, 5, 6, 8, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42.

**"Y" Class Vehicles.**—230, 231, 232, 233, 234, 235, 236, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 309, 315.

**Hospital Cars Nos. 1 and 2.**

**"F" Class Horse Boxes.**—25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36.

2. See also Special Instructions respecting Loose Coupling of Electric Trains passing over this Loop, page 428.

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### THORNBURY.

Engines working at the Glen Iris Brick, Tile, and Terra Cotta Company's Siding at Thornbury must not go beyond the Notice Board erected inside the Railway boundary fence at a point near where the Siding leads off from the Loop to the Company's Works. The Company must arrange to provide horse power for hauling trucks between the Notice Board and the Works.

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### NORTHCOTE.

When it is necessary for trucks for the Northcote Brick Company to be pushed outside the Railway fence, an employe must walk across the roadway in front of the leading vehicle in order to see that pedestrians, and animals, and vehicles are kept clear. The Driver must give due notice of the movement by sounding his whistle.

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### RESERVOIR.

When it is necessary, during shunting operations, for an engine or train to cross over the High-street Crossing at Reservoir, the Guard, or some other employe must walk across the roadway in front of the engine or train in order to warn pedestrians and see that animals and vehicles are kept clear.

The Driver must sound his whistle when approaching the Crossing.

## SUBURBAN SECTION.

### EPPING QUARRYING CO. SIDING.

1. The abovenamed Siding (situate 15 miles 76 chains), between Epping and South Morang, consists of a Loop Siding, 1350 feet, with accommodation for 50 (25ft.) trucks, engine and Van, is open for traffic inward and outward in full truck loads consigned to or by the Epping Quarrying Co. only.

The Siding is extended to a Dead-end at Down end for use by Company, on which are erected loading bins. This Dead-end is 625ft. in length. The Points in Main Line at Up end are rodded to a Catch blade, and at Down end to Safety Points in the Siding, and secured by Staff Locks.

2. A Notice Board, lettered "Engines, Vans, Cars, Box Trucks, and Trucks Loaded Above Water Level, Must Not Pass This Post," is erected at entrance to Dead-end Siding on Up side of Bins.

### NORTH RICHMOND.

1. (a) An Annett Key controlling the Cross-over at North Richmond is secured in a Switch Lock, enclosed in a glass case, fixed in the Station-master's office. To withdraw the Annett Key it will be necessary to break the glass, and turn the key in the lock.

(b) The withdrawal of the key from the Switch Lock places Signals S83, S93, S100 and S106 to the Stop position, and maintains them in that position until the Annett Key is secured in its normal position in the Switch Lock.

2. The Cross-over is provided for emergency purposes, and when necessary to use it the Station-master must arrange for the Cross-over to be protected.

### VICTORIA PARK.

#### (Goods Trains Side-tracked to Yard.)

1. Whenever it is necessary to side-track a Goods train at Victoria Park, the Signalman must, immediately this is done, inform the Signalman at Clifton Hill "A" and Flinders-street "D" (Prince's Bridge) Boxes.

2. The Guard in charge of an Up Goods train on the Heidelberg Line, which requires to shunt at Victoria Park, must advise the Signalman at Fairfield Park, who must pass the information on to the Signalman at Clifton Hill "A" Box.

3. The messages, together with the time sent and received, must be entered in the Train Register Books at the respective Signal-boxes.

### CLIFTON HILL "B" BOX—WESTGARTH AND ALPHINGTON TO HEIDELBERG.

1. (a) Automatic and Track Control Train Signalling is in force on the Single Line Sections, Clifton Hill "B" Box—Westgarth, Alphington—Ivanhoe, and Ivanhoe—Heidelberg, and, subject to the conditions laid down hereunder, the traffic on these Sections is worked in accordance with the Rules shown on pages 580 to 600.



## SPECIAL INSTRUCTIONS.

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(b) **Electric Control and Signals.**—The Signals leading to the Single Line Section are controlled through Automatic Train Stops, protecting the movement, and track controlled through the section to the next Home Signal, and through a Control Lever at the opposite end.

The Control Lever in each Signal-box is locked in the Normal (back in frame) or Normal indication (special notch) positions, and cannot be moved from either position unless the full track section is unoccupied and the opposing Signals and Automatic Train Stop at the opposite end of the Section are at the "Stop" position.

(c) **Track Indicators.**—Indicators are provided for the Control Lever and for the interlocked lever of the Signal controlling the entrance of Trains to the Section; these Indicators, which consist of white lights over the respective levers, function as follows:—

- (i.) For the Control Lever.—Indicating that the Single Line Section and fouling points are Clear, and that all opposing Signals and Automatic Train Stops are at the "Stop" position.
- (ii.) For the Signal Lever.—Indicating that the controlling track sections are Clear, and that the Control Lever at the opposite end is in the reverse position.

(d) **Emergency Release.**—As the Control Lever is interlocked with the levers operating the Points for opposing movements, a Time Release Apparatus is provided for use when necessary to make emergency shunting movements and during Pilot-working.

The operation of the Time Release holds the Signals at each end of the Single Line Section at Danger until the Time Release has been reset.

For description of the Time Release Apparatus, see page 128.

**2. Method of Despatching a Train from "A" to "B."**—(a) When the train is ready to proceed from "A" the Signalman there must, if the section is clear, send the **Release Control** Signal, i.e., one short, one long, and one short ring, on the Electric Bell; the Signalman at "B" must, if he be prepared to accept the train, place his Control Lever to the full reverse position and acknowledge the Electric Bell Signal by giving three short rings.

(b) The reversing of the Control Lever at "B" will clear the Automatic Train Stop which protects the entrance to the Section at "A" and permit the Signalman there to exhibit his Signals for the train to proceed into the Section.

(c) The train, on entering the Section, will replace to Danger the Fixed Signals and Automatic Train Stop "A," and at the same time back-lock the Control Lever "B" in its pulled-over position until the train is clear of the fouling point at "B." See Regulation 81.

(d) The same procedure must be followed when it is required to despatch a train from "B" to "A."

**3. Failure of Indicator Lights.**—(a) In the event of the Indicator Light failing to appear when a train has passed out of the

## SUBURBAN SECTION.

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Section, or when no train should be on the Section, the Signalmen-in-Charge at each end of the Section must immediately confer with each other, and when satisfied that the Section is clear, and that the Indicator light has failed, the Electrical Fitter must immediately be informed, and steps must be taken to have the Indicator put in order.

(b) In the circumstances mentioned in sub-clause (a), trains may be allowed to proceed if the Signals are in order, and can be operated in the proper manner. The Signalman in advance must, however, inform the Signalman at the Signal-box in the rear when each train passes out of the Section at his end, and the time such message is received must be recorded in the Remarks column opposite the entry for the train in the Train Register Book at each Signal-box. A remark to the effect that the Indicator Light or Lights have failed and specifying the number and description of the lever or levers affected and the time must be inserted across the figure line in Train Register Books when the Indicator fails and when it is again in working order.

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### DENNIS.

1. (a) The Signal on Post No. 8 (Up Starting Signal for Fairfield Park), situate about 300 yards back from Up platform at Dennis, is controlled by the Gatekeeper (Victoria-street) and by the employe in charge at Dennis.

(b) The control by Dennis of the Signal on Post 8 will be by means of a switch lever operating in the circuit of the reverser on that Signal. The normal position of this lever will be "Circuit Cut In," and when reversed from that position the Signal on Post 8 will (if at Proceed) assume the Stop position, and will be held at the Stop position until the Switch lever has been placed to its normal position, and the levers operating the Signal at both Victoria-street and Fairfield Park have again been operated.

The Signalman at Dennis must place these Signals at Stop to protect a train which stops more than 30 seconds at the platform, or whenever necessary to protect an obstruction.

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### HEIDELBERG.

The Driver of any Down train which terminates at Heidelberg must, if running round his train at the Down end of the Yard, go right across the over-road Bridge at Burgundy-street, preparatory to setting back. This is to be done in order to avoid unnecessary annoyance to the vehicular and pedestrian traffic on the roadway.

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### MACLEOD — MONT PARK LINE.

1. **Macleod.** — (a) A Switching Instrument is provided at Macleod, and is worked in accordance with the instructions shown on pages 627-632.

2. **Mont Park Line.** — (a) The Single Line from Macleod to Mont Park is worked under the Train Staff and Ticket system; unless

## SPECIAL INSTRUCTIONS.

instructions are issued to the contrary, the Driver of any train or engine travelling on the Line must have possession of the Train Staff. See clause 15, page 559.

(b) The Train Staff will be worked by the Signalman at Macleod, and when it is necessary to work a train or engine from Heidelberg to Mont Park, the Signalman at Heidelberg must inform the Signalman at Macleod when the train or engine leaves Heidelberg. The Signalman at Macleod must at once proceed to the Staff-locked Points, at the Junction of the Mont Park Line, and when the train arrives, the Electric Staff must be handed to him; he will then hand the Driver the Train Staff for the Section, Macleod—Mont Park, and operate the Staff-locked Points for the train to proceed to Mont Park. When the train is clear of the Catch Points he must return the Points to their normal position, and remove the Electric Staff from the Staff Lock; see clause (d).

The Driver of a train or engine proceeding from Heidelberg to Mont Park must stop clear of the Staff-locked Points at the junction until the Signalman is present to set the Points, and has handed him the Train Staff for the Section, Macleod—Mont Park.

(c) On the return of the train from Mont Park, the Driver must stop clear of the Catch Points at the exit from the Mont Park Line, until they have been placed in the proper position, and he has been signalled forward by the Signalman; the Signalman must take the Electric Staff for the required Section to the junction, operate the Points to turn the train to the Main Line, collect the Train Staff from the Driver, and when the whole of the train is clear of the Staff-locked Points, return the Points to their normal position, remove the Electric Staff from the Lock and hand it to the Driver.

When the whole of the train has cleared the Main Line Points, the Driver must stop until handed the Electric Staff for the Section, Greensborough—Heidelberg, or Macleod—Heidelberg, as the case may be.

(d) In order to facilitate the passage of Up and Down trains whilst an engine or train is on the Mont Park Line, Macleod will (unless it is already open as an Electric Staff Station) be opened as an Electric Staff Station by the Mont Park train in accordance with sub-clause (a), clause 5, of the instructions shown on pages 627-632, and unless a train would be delayed by doing so, must be closed as an Electric Staff Station by the Mont Park train in accordance with sub-clause (b) of clause 5, page 630-631.

**3.** (a) The Mont Park Line is unfenced, and Drivers, Firemen and Guards must therefore keep a good look-out when travelling over it; the maximum number of vehicles on any train (equal to six vehicles and a Van) must not be exceeded.

(b) At the Terminus, three Sidings are available for the Goods business. A Scotch Block is provided on the Running Line outside of the Facing Points at the Up end of the Yard, and the Driver must be careful to see that it is removed clear of the Line before entering the Yard. The Driver must approach Mont Park cautiously, and stop at the Test Brake Board, in advance of the boundary fence, to enable the Guard to remove the Scotch Block.

## SUBURBAN SECTION.

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4. The ruling grade on the Line is **1** in **30**, rising towards Mont Park. A supply of Sprags is kept at Heidelberg, and the Guard of every train to Mont Park will require to obtain four on the Down journey and leave them at Heidelberg on the return journey.

### BURNLEY.

1. No Goods train may shunt on the Up or Down Main Lines at Burnley during the hours that Passenger trains are running nor must the engine be detached from the train for any purpose while it is standing on the Main Line.

2. When an engine is in Siding "C" or "D," the Driver must be careful not to move his engine towards the fouling point of these Sidings until the Signal on Post 5 has been exhibited for the intended movement.

### HAWTHORN.

**Kew Line Down Home Signal.**—The Down Home Signal applying from No. 3 Road to the Kew Line is controlled by an electric switch on the Platform at which the Kew Line trains arrive. The employe who is responsible for the Train Staff working is also responsible for the working of the controlled Signal in so far as working it from the lever on the Platform is concerned.

**No. 4 Road.**—At Hawthorn, vehicles must not be permitted to stand in No. 4 Road, nor in either of the Dead-end extensions of that Road.

### GLENFERRIE AND AUBURN.

An electric freight lift is provided at each of the above-mentioned Stations. No person other than the Lift Attendant and Goods Attendant or other specially authorised official is allowed in the Lift. The Station-master must see that the instructions for working and lubricating the Lift are exhibited in the Lift and observed; see clause 4 of instructions shown on pages 535-536.

### CANTERBURY.

Drivers of Up trains must sound the train whistle when passing the Whistle Board situated on the Down side of Automatic Signal L356. The sound of the whistle must be distinct, with intensity and duration proportionate to the circumstances under which it is used. A Notice Board, lettered "SPEED LIMIT 20 m.p.h.," is erected approximately 100 yards ahead of Up Automatic Signal L368, at Canterbury, at 7 miles 8 chains 50 links. This Notice Board is for the guidance of Drivers of Up trains. See page 275.

### SURREY HILLS.

#### Shunting by Goods Trains.

To prevent the possibility of vehicles running away, the following instructions must be observed by those concerned:—

**Down Goods Trains.**—After the last Passenger train for the day has passed, the rear portion of the train may stand on the Down Line during shunting operations. Before the engine and vehicles to be

## SPECIAL INSTRUCTIONS.

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shunted are detached from the train, the Guard must satisfy himself that the Van Brake and a sufficient number of Hand Brakes on the vehicles of the rear portion of the train have been applied.

**Up Goods Trains.**—These trains must be backed into the long Siding, and all shunting operations completed within the Siding limits.

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### BOX HILL.

**1. Standard Brick Co.'s Siding.** — (a) The normal lay of the Points at the junction of the Spur Siding to the Brick Works is for the Dead-end. The Points are secured by a hand-locking bar and padlock, the key of which is held by the Company, who are responsible for keeping the lock bar secured on Points when they are not in use.

(b) Before permitting any shunting movement to be carried out on that part of the Company's Siding beyond the railway boundary, the Shunter in charge of the movement must first assure himself that the Points leading to the Spur Line are in the proper position, and that the Company's Oil Locomotive is clear of the Dead-end Siding.

(c) Engines must not enter on the Spur Line, which leads from the Siding to the Brick Works. A Notice Board showing "ENGINES PROHIBITED FROM USING SPUR SIDING," is erected at the Points leading from the Siding to the Spur Line. The Company must accept delivery of all inward trucks, and give delivery of all outward trucks properly coupled up on the Siding.

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### BLACKBURN.

#### Co-operative Brick Company's Siding.

**1.** This Siding is situated on the left side of the Down Line, about 640 yards on Down side of Blackburn Station. The Facing Points in the Down Line which lead to this Siding are 490 yards outside the Down Starting Signal, are rodded to Catch Points in the Siding and worked by a Quadrant Lever, secured by Annett Lock, the key of which is normally kept in a duplicate lock on the Interlocked Frame in the Signal-box, during the absence of the key from the Frame Lock all Down Signals will be locked at the Stop position. The Siding must not be worked during darkness or in foggy weather.

**2.** When it is necessary for an engine to work at the Siding the Signalman must obtain Line Clear from the Station in advance, then withdraw the Annett Key from the lock and hand it to the Driver. This will authorise the Driver of the engine to proceed to the Siding and (after shunting is completed) to return on the SAME LINE up to, but not foul of, the Road Crossing Gates near the Down Starting Signal Post 33. The Driver must approach the point mentioned cautiously, and there await a Hand-Signal from the Signalman. When the engine arrives at the Signal-box, and the Down Line between that point and the Co-operative Brick Company's Siding is clear, the Driver must return the Annett Key to the Signalman, who must immediately replace it in the lock.

## SUBURBAN SECTION.

3. To permit of the key being withdrawn the Starting Signal on post No. 33 will require to be placed at the Stop position; the Driver of the engine, in possession of the Annett Key, may pass this Signal for the purpose of proceeding to the Siding when instructed to do so by the Signalman. On arrival at the Siding the Driver must hand the key to the Guard, who, when the shunting is completed, must return the key to the Driver.

### TUNSTALL.

#### (Kemp and McGregor's Siding.)

1. (a) The above Siding is situated between the Up Home Signal and the platform at Tunstall, and contains two Dead-end roads, each road having accommodation for 8 vehicles. The Siding leads off the Up Line, and the trailing Points in the Main Line and Catch Points at the exit of the Sidings are rodded together. A two-lever interlocked frame is provided near the Main Line Points, one lever controlling the Up Home Signal at Tunstall, and the other operating the Points in the Main Line and Sidings. Under normal conditions the Home Signal and Points at Tunstall are secured in the normal position by means of an Annett Lock, the key of which is normally secured in a duplicate Annett Lock on the interlocked frame in the Signal-box at Mitcham, in the absence of the key from the frame at Mitcham, the Up Home and Starting Signals and the crossover Road are secured in the normal position.

(b) The Driver of any Up Goods train that is required to shunt at Tunstall in accordance with these instructions may, after receiving verbal instructions from the Signalman at Mitcham, and provided the Driver is in possession of the Annett Key and a "Wrong Line Order," pass the Up Starting Signal at Mitcham whilst it is at the Stop position.

(c) Owing to the heavy falling gradient trains must not be stopped at this Siding to work, but the engine of a convenient Up Goods train may, after the train has been placed in the Yard at Mitcham, proceed to the Tunstall Siding to place or clear trucks, and after completing its work there the engine may return on the Wrong Line from Tunstall to Mitcham, when the Driver must at once return the Annett Key to the Signalman. The key of the padlock which secures the Gate normally closed across the rails behind the Catch Blade in the Siding at Tunstall is attached to the Annett Key.

2. **Method of Working from Mitcham.** — (a) Before despatching the engine (with or without trucks) to the Siding, the Signalman at Mitcham must obtain permission from Blackburn in the regular way for the Up train to proceed, and before allowing the engine to proceed he must hand the Driver the Annett Key and a "Wrong Line Order" to authorise the Driver to return from Tunstall to Mitcham on the Up Line. When the engine departs for Tunstall, the "Departure Signal" must be sent and acknowledged, and the Signalman at Blackburn must be informed of the circumstances. On the return of the engine or train from Tunstall, the Signalman at Mitcham must, after having ascertained that the train has arrived complete, send the "Cancelling" Signal to Blackburn.

## SPECIAL INSTRUCTIONS.

The Driver, when returning to Mitcham on the Wrong Line, must stop the leading vehicle clear of Post 38c at Mitcham until signalled forward by the Signaller.

(b) The attention of the Signaller at Mitcham is directed to clause (b) of Regulation 244.

(c) Guards working at this Siding must place the Distant Signal to Danger from the Quadrant on the platform at Tunstall before operating the frame at the Siding, and before leaving must again lower the Distant Signal.

(d) This Siding must not be worked during darkness or in foggy weather, nor when the Block Instruments are out of order.

**3.** (a) Vehicles may be taken from Mitcham without a Brake van in the rear, subject to the instructions on pages 472-479 of this Book being observed.

(b) Subject to the instructions on pages 396-399, vehicles may be pushed from the Siding when returning to Mitcham on the wrong line.

### RINGWOOD—UPPER FERNTREE GULLY LINE.

*(See Instructions under this heading on pages 864-865.)*

#### CROYDON.

#### (Protection of Level Crossing at 18 miles 50 chains at Down End of Croydon Station.)

**1.** (a) Whenever it is necessary for trains or vehicles to be left standing in No. 2 Road, or "A" Siding, adjacent to the Level Crossing at Down end of Croydon Station, the Officer in charge at Croydon must arrange for a competent employe to proceed to the crossing for the purpose of warning pedestrians and drivers of vehicles, etc., of Danger, in every instance in which a train or shunting movement is to proceed over the crossing.

(b) The Officer in charge at Croydon must see that the employe detailed for this duty is in attendance prior to the Fixed Signals being placed at "Proceed" for a train or shunting movement over the crossing.

(c) The employe protecting the crossing must be provided with a Red and a Green flag by day and a Hand lamp at night, and these appliances must be kept in a convenient place known to all employes concerned, and ready for immediate use.

**2. Cool Stores Siding.**—(a) This Siding leads off the Dead-end extension of No. 2 Road at Down end of the Station. The Points in the extension of No. 2 Road, and the Catch Points in the Cool Stores Siding are rodded together, and worked by a ground lever. These Points are secured by an Annett Lock, the key of which is normally kept in a duplicate lock on the Interlocked Frame in the Signal-box.

(b) When, during the absence of the key from the Signal-box, it is necessary to signal a train from either No. 2 or 3 Road to the Dead end extension of No. 2 Road, the Signaller must, before exhibiting the Signal, instruct the Driver not to pass over the Annett-locked Points until instructed to do so by the person in charge of the shunting.

## SUBURBAN SECTION.

### LILYDALE—CAVE HILL SIDING.

**1.** Cave Hill Siding leads off the Main Line, about a mile on the Up side of Lilydale Station. The Points in the Main Line are rodded to a Catch in the Siding, and secured by a miniature Staff Lock.

**2.** Vehicles, not exceeding 12 in number, may be pushed from Lilydale to the Siding under the conditions laid down on pages 396-399, for pushing trains; the engine must be in front on the return journey, and the Guard or Shunter in charge of the train must ride in the rear vehicle.

**3.** Engines, Vans, cars, high-sided trucks or I trucks loaded above water level must not be permitted to pass the "Limit" Boards, which are erected on both groups of Sidings.

### LILYDALE-WARBURTON LINE.

#### (Working the 8.15 p.m. Down and 3 a.m. Up Goods Trains between Lilydale and Warburton.)

(a) The Staff Exchange Boxes at Mt. Evelyn, Wandin and Yarra Junction will be in use as set out hereunder, and will be worked in accordance with the instructions shown on pages 210-216.

(i.) **MT. EVELYN.**—The Staff Exchange Box at Mt. Evelyn will be in use for the 3 a.m. Up Daily.

(ii.) **WANDIN AND YARRA JUNCTION.**—The Staff Exchange Boxes at Wandin and Yarra Junction will be in use for the 8.15 p.m. Down and 3 a.m. Up Daily.

(b) The Staffs for the Sections, Mt. Evelyn—Wandin, Wandin—Yarra Junction, and Yarra Junction—Warburton, which will be withdrawn from the instrument at the respective stations for the 8.15 p.m. Down (Saturdays excepted), will also be used for the 3 a.m. Up (Mondays excepted) without being put through the Instrument at either Wandin, Yarra Junction or Warburton.

(c) The Guard of the 8.15 p.m. on arrival at Warburton must take charge of the Station. He must place the Home Signal to the "Stop" position, obtain the Staff from the Driver, and, provided the train is complete, immediately place such Staff in the pocket of the Instrument, being particularly careful not to place it through the instrument. He must also record the arrival time of the train in the Train Register Book, and that the Electric Staff has been placed in the pocket of the Instrument for the 3 a.m. Up Goods, and before leaving duty, must see that the Fixed Signals are left at the "Stop" position and are showing clearly and that the Road leading from the Engine Shed to the Yard is quite clear for the engine of the 3.0 a.m. Up.

(d) When the 3 a.m. Up arrives at Lilydale, the Signalman must obtain the Staff from the Driver, and provided the train is complete, place such Staff in the pocket of the Instrument until intimation is received that the Signalman at Mt. Evelyn is in attendance, when the Staff must be restored to the Instrument under the **Train Arrival Signal**.



## SPECIAL INSTRUCTIONS.

(e) When the Signalman at Yarra Junction and Wandin come on duty in the morning (Mondays excepted) they must at once advise the Stations on either side of them, insert the Staff in the respective Instruments and send the cancelling Signal.

(f) The Staff brought forward from Yarra Junction to Wandin by the 3 a.m. Up may be used before being placed in the Exchange Box if Engine be required to return to Seville for portion of the train left in Siding.

(g) The Signalman at Warburton will not be on duty for the departure of the 3 a.m. Up Daily, and in this connection the following instructions must be observed.

- (i.) The Guard of the train will act as Station-master.
- (ii.) The Signalman at Warburton will withdraw a Staff for the Section Warburton—Yarra Junction after the **“Train Arrival”** Signal for the previous train has been exchanged on Sunday. The Staff so obtained must be left in the holder of the Electric Staff Instrument for the Section Warburton—Yarra Junction.
- (iii.) Before leaving duty the Signalman must see that the Fixed Signals are left at the “Stop” position and are showing clearly, and that the Road on which the engine will run from the Engine Road to the Warburton Yard is quite clear to the point the engine has to run.
- (iv.) The Guard of the 3 a.m. Up Goods train must, when he comes on duty and after seeing that the line is clear and the points are secured in the proper position, lower the Signals for the engine to enter the Yard from the Engine Road. After the engine arrives in the yard he must replace the Signals to the “Stop” position, attach the engine to the train, and when the train is ready to proceed he must obtain the Electric Staff for the Section from the holder of the Instrument and hand it to the Driver, and despatch the train. The Guard must keep a correct record of the time the train leaves Warburton, and on returning to that Station this record must be handed to the Signalman, who will enter the time the train departed in the remarks column of the Train Register Book, opposite the entry for the train concerned.
- (v.) The Station-master, Warburton, must arrange for the Guard to be supplied with a duplicate key of Office, and instruct him in the duties they are required to perform.

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### WANDIN—WOORI YALLOCK—YARRA JUNCTION.

A Composite Staff is provided for the Section Wandin—Yarra Junction, and, when specially authorised, Woori Yallock will be opened as an intermediate Block Post and worked in accordance with the instructions shown on pages 632-642.

## SUBURBAN SECTION.

### MOUNT EVELYN—LILYDALE.

**1.** On the Up journey every train must stop at Mount Evelyn, where the Hand Brakes on all trucks fitted with pipes not operating Brake Blocks, and on all Westinghouse Brake trucks not controlled by the Driver, and on as many trucks on which the Westinghouse Brake is in operation as the Driver may consider necessary, must be put down. The Brakes must be taken off again at Lilydale.

**2.** The duty of dropping the Hand Brakes and lifting them again at the proper place is to be performed by the Fireman and Guard conjointly; see clause 7, pages 603-604.

**3.** The Hand Brake Levers when dropped must be pressed down and properly secured by pin or ratchet.

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### LAUNCHING PLACE.

**1. Level Crossings at Up and Down Ends of Station.—** Three-position Wig-Wag Signals are provided at the Level Crossings at Up and Down end of Launching Place.

**2. (a)** The Wig-Wag Signal at the Up end of the Station operates in the ordinary way for Down trains, but for Up trains it works in conjunction with the Up Home Signal; the Wig-Wag Signal will not operate for Up trains until the Home Signal is placed at Proceed, the object being to prevent the Danger indication being displayed by the Wig-Wag Signal for an Up train which stops to perform Station work, until such train is ready to proceed over the Crossing.

**(b)** The Wig-Wag Signal on the Down side of the Station operates in the ordinary way for Up trains, but for Down trains it works in conjunction with the Down Home Signal; the Wig-Wag Signal will not operate for Down trains until the Home Signal is placed at Proceed, the object being to prevent the Danger indication being displayed by the Wig-Wag Signal for a Down train which stops to perform Station work, until such train is ready to proceed over the Crossing.

**3.** The Home Signals are operated by levers on the platform, and are equipped with an electric reverser controlled by the track circuits.

**4.** In the case of trains which stop at platform, the Caretaker or Guard must not place the "Departure" Home Signal at Proceed until immediately prior to the train being ready to depart. In the event of an engine requiring to pass the Home Signal for shunting purposes, the Signal must be placed at Proceed, and if the Signal is not reversed to the Stop position by the engine, it must be placed to Stop by the lever on platform to prevent the Wig-Wag from operating unnecessarily.

**5. (a)** The normal position of the Home Signals and levers on the platform is Stop, and the Caretaker must see that they are left in that position prior to leaving the Station: this will necessitate all Down trains being stopped at the Home Signal during the time Caretaker is absent; in which case the Guard of the train, or the Fireman in the case of a

## SPECIAL INSTRUCTIONS.

Light Engine, must, when the train or engine is ready to depart, place the Home Signal to Proceed. In the event of the Home Signal being at Stop and the lever on platform at the pulled-over position, the employe operating the lever must first place the lever to normal, and again pull it over to place the Signal to Proceed; the lever must be pulled slowly and not jerked, otherwise the Signal-arm may slip and fail to go to the Proceed position.

(b) When the Home Signal is at Stop, Drivers of Light Engines should stop at the Platform for the Firemen to operate lever.

(c) It will not be necessary for Guards or Firemen to place the lever to the Stop position after lowering the Signal for a train to depart, but the Carctaker must, as soon as a train passes the Signal or when coming on duty after a train has passed through during her absence, place the lever to its normal or Stop position.

6. The Ganger must arrange for the Home Signals to be lighted at night in accordance with the instructions shown on pages 137-140.

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### WARBURTON.

**La La Sidings and Engine Shed.** — (a) The speed of any train or engine from Warburton to La La Sidings or the Engine Shed, or any engine from La La Sidings or Engine Shed to Warburton, must not exceed a rate of 10 miles per hour, and this is subject to a rate of 5 miles per hour when passing over the Level Crossing.

(b) Vehicles not exceeding 10 in number may be pushed from Warburton to the Sidings, but not from the Sidings to Warburton; see pages 396-399.

(c) On the Up or Down journey with an engine, or on the Down journey with a train, either during daylight or darkness, the train or engine must be stopped before the Level Crossing is reached, and the Guard or Shunter in the case of a train, or the Fireman in the case of a Light Engine, must walk over the Level Crossing ahead of the engine or leading vehicle, as the case may be, and see that vehicular and pedestrian traffic is kept clear; the same precaution must be adopted at any time when it is necessary to foul the Crossing during Shunting operations.

(d) On the Up journey, in the case of a train, the Guard or Shunter must, after shunting is completed, proceed to the Level Crossing, and after seeing that vehicular and pedestrian traffic is kept clear, exhibit a Green Hand-Signal to the Driver, and continue to protect the Crossing until the train has passed. The Driver must not move forward from the Siding until he receives the Green Hand-Signal from the Guard or Shunter at the Crossing; he may then pass over the Crossing at a rate not exceeding 12 miles per hour.

(e) In every case the train crew must keep a good look-out, the Driver must make free use of the engine whistle, and not proceed over the Crossing until he has been properly signalled to do so by the employe who has walked on ahead, or is protecting the Crossing.

## SUBURBAN SECTION.

### RINGWOOD—UPPER FERNTREE GULLY LINE.

#### (Working of Parcels Coach.)

1. To obviate shunting a Parcels Coach for an Electric train to precede, or to prevent delay to an Electric Passenger train in the event of the Parcels Coach not having sufficient time to clear the Section, authority is hereby granted for the Parcels Coach to be attached to the rear of an Electric Passenger train on the above-mentioned Line.

2. When coupling the trains, Regulation 109 and the directions applicable in clause 2 of the instructions shown on pages 442-444 must be observed.

### LOWER FERNTREE GULLY.

#### (Opening and Closing of as an Electric Staff Station.)

1. (a) A Switching Instrument is provided at Lower Ferntree Gully by which this place is opened and closed in accordance with the "Instructions for Opening and Closing an Electric Staff Station, where Switching Instruments are Provided; pages 627-632.

(b) Up and Down Home Signals are provided, and when this Station is open as an Electric Staff Station, the Points in Main Line will be Plunger Locked, and the Home Signals brought into use. The Metropolitan Superintendent will arrange for the Signals to be lit as required.

2. When Lower Ferntree Gully is closed as an Electric Staff Station the Up and Down Home Signals will be out of use and crossed in accordance with Regulation 91, and the Points in Main Line rodded to Safety Points in the Sidings, and secured by Staff Locks.

### UPPER FERNTREE GULLY.

#### 1. Engines Proceeding from Narrow Gauge Shed to Yard.

—Narrow Gauge Engines proceeding from the Coal Stage to the Yard at Upper Ferntree Gully must come to a stand before entering upon the Level Crossing, and there await an instruction to proceed from the Guard or Shunter. In the event of no Guard or Shunter being in attendance within a reasonable time, the Fireman must go forward to the Station and notify the Officer-in-Charge that the engine is waiting.

2. Protection of Level Crossing at 22 miles 43 chains Up end of Station.—(a) Except in cases of extreme emergency, a train or vehicles must not be permitted to stand within 250 yards of the Level Crossing on the Siding leading to Engine Shed at Up end of Upper Ferntree Gully Station.

(b) In the event of it being temporarily necessary for a train or vehicles to stand closer to the Level Crossing than set out in Clause 1 hereof, the Officer in charge at Upper Ferntree Gully must arrange for a competent employe to proceed to the crossing for the purpose of warning pedestrians and drivers of vehicles, etc., of Danger in every instance when a Down train is required to pass over the Level Crossing whilst the

## SPECIAL INSTRUCTIONS.

vehicles are fouling the view from the north approach. The Officer in charge at Upper Fern Tree Gully must see that the employe detailed for this duty is in attendance prior to the Fixed Signal being placed at the Proceed position for the movement.

(c) The employe protecting the crossing must be provided with a Red and a Green flag by day and a Hand lamp at night, and these appliances must be kept in a convenient place known to all employes concerned, and ready for immediate use.

**3. Working of First Down and Last Up Gembrook Goods Trains.**—The Station Staff at Upper Fern Tree Gully will not be on duty for the last Up Gembrook Line Goods train nor for the departure of the first Down Gembrook Goods; the Guards of these trains will act as Station-master, in accordance with the Instructions shown on pages 208-213, and special instructions issued for their guidance. The Instructions shown hereunder must also be observed by all concerned.

- (i.) Before leaving duty at night, the Signaller, Upper Fern Tree Gully, must see that the Fixed Signals are showing properly and left at the Stop position, and that the Line is clear to the point to which the last Up train will require to run. If, however, there are any vehicles left on No. 1 Road, he must, in addition to leaving the Signals at the Stop position, place on the outer vehicle a lamp showing a Red light in the direction of a train approaching from Gembrook.
- (ii.) When the Up train has been brought to a stand at the Home Signal, the Guard must go to the Driver and inform him that No. 1 Road may be occupied, and warn him of the need for entering the Station Yard cautiously (as laid down in Regulation 109) when the Home Signal is lowered. The Guard must then proceed to the Station, and, after seeing that the Line into the Station is clear and that the Points are secured in the proper position, lower the Home Signal for the Driver to draw cautiously into No. 1 Road; after lowering the Home Signal, the Guard must stop the train where required by exhibiting a Red Hand-Signal. When the train has stopped, the Guard must replace the Home Signal to the Stop position, and, provided the train has arrived complete, collect the Section Order from the Driver and after cancelling it, and also his own Section Order, as laid down in sub-section (i) of clause (e), page 569 of this Book, place both Orders in the Station-master's Office. The train must then be dealt with according to requirements, for which the Guard will receive instructions from the Station-master.
- (iii.) The Guard of the first Down train must, after the engine has been attached, and the train is ready to proceed, obtain and deal with the Section Orders, as laid down in Rule 2, pages 562-563, after which, if the track to the Main Line be clear, the Guard may despatch the train.

### DARLING LINE.

**1.** The abovementioned Line consists of a Double Line between Burnley and Heyington, and a Single Line from Heyington to Darling.

## SUBURBAN SECTION.

**2. Burnley-Heyington.**—Three-position signalling is in force between Burnley and Heyington.

**3. Heyington-Darling.**—(a) Automatic and Track Control Train Signalling is in operation on the Single Line between Heyington and Darling, and, subject to the conditions laid down hereunder, the traffic on the Single Line Section is worked in accordance with the Rules shown on pages 580-600.

(b) The existing Sections of the Single Line are as follow, viz.:—Heyington—Tooronga; Tooronga—Glen Iris; Glen Iris—Darling.

(c) An interlocked Control Lever is provided at the Signal-box at each Crossing Station; the Control Lever in each Signal-box is locked in the "normal" (back in frame) and "normal indication" (special notch) positions, and cannot be moved from either position unless the full Track Section is unoccupied and the Train Stop and the Signal controlling the entrance to the Section from the opposite end of the Section are in the Stop position.

(d) **Electric Control of Fixed Signals.**—The Fixed Signals on the Single Line are Two-position Signals: see Regulation 47. The Signals controlling the entrance to the Single Line Sections are equipped with the Automatic Train Stop Apparatus and controlled as shown hereunder:—

(i.) **Down Signals.**—HEYINGTON.—By the Control Lever and the Indication displayed on the Up Departure Home Signal at Tooronga, also by the track between Post 2 at Heyington and Post 9 at Kooyong.

TOORONGA.—By the Control Lever and the Indication displayed on the Up Departure Home Signal at Glen Iris, also by the track between Posts 16 and 17 at Tooronga and Post 22 at Gardiner.

GLEN IRIS.—By the position of the Up Departure Home Signal at Darling, and the track between Post 28 at Glen Iris and Departure Home at Darling.

(ii.) **Up Signals.**—DARLING.—By the Control Lever and the Indication displayed on the Down Departure Home Signal at Glen Iris and by the track between Departure Home Signal at Darling and Post 27 at Glen Iris.

GLEN IRIS.—By the Control Lever and the Indication displayed on the Down Departure Home Signal at Tooronga, also by the track between Post 27 at Glen Iris and Post 21 at Gardiner.

TOORONGA.—By the Control Lever and the Indication displayed on the Down Departure Home Signal at Heyington, and by the track between Posts 13, 14 and 15 at Tooronga and Post 7 at Kooyong.

(e) **Track Indicators.**—Indicators are provided for Control Levers and for the levers of Signals controlling entrance to the Single Line Sections; these Indicators, which consist of White Lights over the Levers mentioned, function as shown hereunder:—

(i.) **Control Lever.**—To indicate the Single Line Sections (including fouling points) are clear, and that all opposing Signals and Train-stops are at the Stop position.

## SPECIAL INSTRUCTIONS.

(ii.) **Signal Lever.**—To indicate that the controlling Track Sections are clear, and that the Control Lever at the opposite end of the Section is in the reversed position.

(f) **Emergency Release.**—As the Control Lever is interlocked with the levers operating the Points for opposing movements, a Time Release Apparatus is provided for use when necessary to make emergency shunting movements and during Pilot-working.

The operation of the Time Release holds the Signals at each end of the Single Line Section at Danger until the Time Release has been re-set.

For description of the Time Release Apparatus see pages 134-135.

(g) **Method of Despatching a Train.**—The Signalman at, say, "A," must ask on the electric bell for the Control Lever. The Signalman at "B" must, if the Section be clear, place his Control Lever to the full reverse position; this operation will clear the Train-stop of the Departure Signal at "A," and permit of the Signalman placing that Signal to the Proceed position.

The train, on entering the Section from "A," will replace the Signal and Train-stop to the Stop position, and back-lock the Control Lever at "B" until clear of the fouling points at "B." The Signalman at "A" must immediately after the train has entered the Section replace the Signal Lever to the normal position.

The same procedure will apply when despatching a train from "B" to "C," and so on.

(h) **Failure of Indicator Lights.**—In the event of the Indicator Light failing to appear when a train has passed out of the Section, or when no train should be on the Section, the Signalmen-in-Charge at each end of the Section must immediately confer with each other, and when satisfied that the Section is clear, and that the Indicator Light has failed, the Electrical Fitter must immediately be informed, and steps must be taken to have the Indicator put in order.

In such a case, trains may be allowed to proceed if the Signals are in order, and can be operated in the proper manner. The Signalman in advance must, however, inform the Signalman at the Signal-box in the rear when each train passes out of the Section at his end, and the time such message is received must be recorded in the Remarks column opposite the entry for the train in the Train Register Book at each Signal-box. A remark to the effect that the Indicator Light or Lights have failed, and specifying the number and description of the lever or levers affected, and the time, must be inserted across the figure line in Train Register Books when the Indicator fails, and when it is again in working order.

4. Toorong-road Level Crossing passes over the Siding at the Down end of the Yard. During shunting operations the Guard or Shunter-in-charge must take steps to protect vehicular and pedestrian traffic, and before the crossing is fouled by a train or engine an employe must be stationed there to keep the crossing clear of public vehicles.

5. (a) A daily Goods train works as prescribed hereunder on the Darling Line after Passenger traffic has ceased.

## SUBURBAN SECTION.

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(b) The Signalman from Kooyong will join the Down Goods and accompany it to Darling. Before joining the Down Goods train at Kooyong, the Signalman must open the Gates for vehicular traffic; he will then ride on the engine, and attend to the interlocked Gates at Gardiner, and hand-operated Gates at Toorak-road, Toorong, and High-street, Glen Iris, and, before leaving, secure the Gates across the Line.

(c) A duplicate key for the locks on Gates at non-interlocked Level Crossings, and duplicate keys for Signal-boxes at Gardiner and Darling are also in the possession of Signalman at Kooyong, who is responsible for their safe custody.

(d) When the appointed time for going off duty has arrived the Gatekeepers must, if no train be approaching, place all Gates across the Line, and secure them by means of the chains and padlocks specially provided for that purpose. Before leaving his post, the Gatekeeper must see that there is sufficient oil in the Gate Lamp (or Lamps), and that the Red light of the lamp (or lamps) will be clearly visible to the Driver of any approaching train. Gatekeepers will be responsible for the safe custody of the chains, padlocks and keys.

(e) When the Goods train is approaching a Level Crossing, the Signalman must remind the Driver that the Gates are across the Line; the Driver must stop clear of each Level Crossing in order that the Signalman shall attend to Gates. After closing the Gates against vehicular traffic, the Signalman must exhibit a Green light as the signal for the train to pass over the crossing and rejoin the engine.

(f) Arrangements have been made for the Night Yard Porter from Burnley to attend the Level Crossing at Maddern-grove. A duplicate key has been supplied for this purpose. It will be necessary for the Yard Porter to ride on the engine as far as the crossing, and remind the Driver that the Gates are across the Line. After the train has passed over the crossing, the Yard Porter must secure the Gates across the line, then return to Burnley and attend to his usual duties.

The Yard Porter must return to Maddern-grove in sufficient time to open Gates to permit the Up Goods train to pass through.

(g) The Driver must not proceed on to any Level Crossing until he has received the Green light from the Signalman or Yard Porter on the crossing, and after having passed over the crossing, the Driver must stop to enable the Signalman to rejoin the engine, and must not start until he receives a Green Hand-Signal from the Guard.

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### KEW.

**1.** Drivers of Electric trains arriving at Kew must bring their trains to rest with leading vehicles at platform opposite the Down end of Station verandah. A lever sleeve must be placed on No. 6 lever, when the cross-over is not in use.

**2.** As soon as a Down train has passed the Points at Up end of Station, all levers must be placed to normal position in the frame, and remain so until the Up train has departed.



## SPECIAL INSTRUCTIONS.

3. In the event of a steam train arriving in No. 1 Road, and the engine requiring to run around, the Driver of the engine, and the employe working the Interlocked frame, will be responsible for seeing that the front vehicle is clear of the fouling Point of the cross-over, from No. 1 to No. 2 Road, before the engine is detached.

### CAMBERWELL—RIVERSDALE.

1. Automatic and Track Control Train Signalling is in force on the Single Line Section, Camberwell—Riversdale, and, subject to the conditions laid down hereunder, the traffic on this Section is worked in accordance with the Rules shown on pages 580-600.

2. **Electric Control of Signals—Camberwell.**—(a) The Signalman, Camberwell, will have sole control of the entrance of trains from either end to the Single Line Section between the Three-position Home Signal (No. 6) Camberwell and the Signals on Post 4, Riversdale.

- (i.) A Control Lever is provided at Camberwell, and by means of this lever the Signalman controls the Signals governing the entrance to the Single Line Section at Riversdale; a Control Lever is not provided at Riversdale.
- (ii.) The Signals applicable from Nos. 1, 2 or 3 Roads are controlled by Track circuit, and provided the Single Line Section be clear and the Control Lever is in its normal position, these Signals may be placed to the Proceed position.
- (iii.) The Low Speed Signals applicable to the Single Line Section are not controlled by Track Circuit except as prescribed in clause (d), Regulation 59.

(b) **Riversdale.**—The levers for operating the Signals (Post 4) applicable from Riversdale to Camberwell are controlled by Track Circuit and by the Control Lever at Camberwell. Before any such Signal can be placed to the Proceed position the Single Line Section must be clear to the Home Signal (Post 6), Camberwell, and the Control Lever at Camberwell must be in the pulled-over position; this operation of the Control Lever locks, at the Stop position, all opposing Signals at Camberwell; and when the lever operating the Signal applicable to the Single Line from Riversdale is pulled over, the Control Lever at Camberwell becomes back-locked, and, except as shown hereunder, remains so until the train has passed out of the Section and the Signal lever at Riversdale is restored to the normal position.

**Exception.**—When an Up Goods is required to work in the Camberwell Yard and the circumstances require that a portion of the train shall be left outside the Home Signal (Post 6), the Control Lever Back-lock will (provided the Points are set for the Goods Yard), be released after the engine has passed Post 6; this permits of the operation of Dwarf Signal No. 18 for the engine to return to its train.

3. **Track Indicators—Camberwell.**—(a) At Camberwell a Diagram of the Single Line Section is provided in the Signal-box. Under normal conditions, when the Single Line is clear, the corresponding section of the Diagram is illuminated; when the Single Line is obstructed the Light in that Section of the Diagram is automatically switched off.

## SUBURBAN SECTION.

(b) **Riversdale.**—At Riversdale the Semaphore Signal (top left-hand arm, Post 4) applicable from Riversdale to Camberwell is worked from Box "B"; the Disc Signal on Post 4 applicable from Siding No. 3, Riversdale to Camberwell, is worked from the Auxiliary Box ("A"). At Boxes "A" and "B" an Indicator is provided for the Signal applicable to the Single Line Section. When the Single Line Section is clear the Indicators show a White light, provided the Signaller, Camberwell, has taken off his Control Lever, otherwise the Indicator light is automatically switched off.

### 4. Method of Despatching a Train—(a) Down Train.—

When a train is ready to proceed from Camberwell to Riversdale the Signaller, Camberwell, must (if the Section be clear and he has not given permission for an Up train to enter the Section) describe the train on the Electric Bell, and, after receiving an acknowledgment, exhibit the Signal for the train to proceed.

(b) **Up Train.**—When a train is ready to proceed from Riversdale to Camberwell, the Signaller, Riversdale, must send the **Release Control Signal**, i.e., one (1) short, one (1) long, and one (1) short ring, and describe the train on the Electric Bell. On receipt of this Signal the Signaller, Camberwell, must, if he is prepared to accept the train release the Control Lever and give three (3) short rings to Riversdale; this operation of the Control Lever at Camberwell will produce a White light in the Track Indicator at Riversdale, indicating that the Single Line Section is clear, and that the Signal is free.

When the train is leaving Riversdale the Signaller there must describe the train on the Electric Bell, and when the train has passed the Signal (on Post 4) he must replace the Lever of the Signal to the normal position.

**5. Failure of Track Indicator.**—(a) In the event of the light of the Track Indicator failing to appear when a train has passed out of the Section or when no train should be on the Section, the Signallers-in-Charge at each end of the Section must immediately confer with each other, and when satisfied that the Section is clear, and that the Indicator light has failed, the Electrical Fitter must immediately be informed, and steps must be taken to have the Indicator put in order.

(b) In the circumstances mentioned in sub-clause (a), trains may be allowed to proceed if the Signals are in order, and can be operated in the proper manner. The Signaller in advance must, however, inform the Signaller at the Signal-box in the rear when each train passes out of the Section at his end, and the time such message is received must be recorded in the Remarks column opposite the entry for the train referred to in the Train Register Book at each Signal-box. A remark to the effect that the Indicator Light has failed, and the time, must also be inserted across the figure line in Train Register Books, when the Indicator fails and again when it is in working order.

**6. Failure of Signals.**—If, when the Signaller at either end of the Section reverses the lever of the Signal controlling the entrance of trains into the Section, the Signal should remain at the Stop position, and the

## SPECIAL INSTRUCTIONS.

Track Indicator indicates that the Section is clear, the Signalman at both ends of the Section must confer with each other: all Levers involved must be restored to their normal position, and again operated in the regular way; see clauses (c) and (d), Regulation 76.

If, after repeated and regular operation of the Signal Lever, the Signals still fail, and the Electrical Fitter is not readily available, arrangements must, except when instructions are issued to the contrary, be made to conduct traffic as prescribed in clause 10 of the Instructions shown on pages 587-593.

### RIVERSDALE—EAST KEW—ASHBURTON.

**1. Riversdale.**—(a) When, after the last train for the day the local Ashburton-Riversdale Passenger train is required to run to Flinders-street for any purpose, the Guard of this train will be responsible for opening the Gates at the Prospect Hill-road Level Crossing for the passage of the train and for closing them again when the train has passed through; the Guard must instruct the Driver to stop clear on each side of the Gates for this purpose on the Up and Down journey.

If after passenger traffic has ceased the Riversdale-Deepdene Rail Motor train is required to run to Melbourne, the Driver, if unaccompanied by a Guard, must attend to the Gates.

The Station-master, Riversdale, will supply the Guard or Engine-driver with a duplicate key of the Gates.

**On the Down journey, the Signalman at Riversdale must not exhibit the Signal for the train to enter the Station until he has received a Green Hand-Signal from the Guard at the Gate.**

**Matlock-street Footcrossing.**—(b) A combined Speed Restriction Board and Whistle Post is erected between Camberwell and Riversdale at a point about 100 yards on Up side of Matlock-street footcrossing; this footcrossing passes over the Riversdale—Deepdene Section, as well as over the Riversdale—Camberwell Section.

The Board is lettered "SPEED LIMIT 10 MILES PER HOUR," and the whistle indication is exhibited under the board.

The speed of any train or engine must not exceed 10 miles per hour between the Board and the Crossing referred to, and the Driver must make proper use of the train whistle.

**2. Riversdale-East Kew-Deepdene.**—(a) The Deepdene Tramway Line crosses the Railway Line at White Horse Road, at Up end of Deepdene Station. Gates are not provided, and the Railway and Tramway traffic at this Crossing will be regulated in accordance with the following instructions, which must be observed by all concerned:—

- (i.) Stop Boards (illuminated at night) lettered as shown below, applicable to trains, are erected (clear of the Crossing) on the left side of the Railway Line:—**"ALL TRAINS STOP HERE. THEN PROCEED CAUTIOUSLY OVER CROSSING."**
- (ii.) The Driver must bring his train to a stand at the Stop Board, before reaching the Crossing, and must not proceed until he has seen that the Crossing is clear. The Driver must keep a good look-out and make frequent use of his whistle at the Crossing.

## SUBURBAN SECTION.

- (iii.) Stop Indicators are also provided for the trams. Tramway Motormen must stop their trams at the Indicators applicable to the direction in which the tram is to proceed, and must not pass on to the Crossing with the tram until authorised to do so by the Conductor in accordance with sub-section (iv). At night a fixed Red Stop Signal will be exhibited to Tramway Motormen and trams must be stopped at this Signal until, as prescribed in sub-section (iv), the Motorman is instructed by the Conductor to proceed.
- (iv.) Before giving the Motorman authority to proceed on to the Crossing, the Conductor must in every case go to the centre of the Crossing, and if there is a train or engine approaching, or if one be standing at the Crossing, the Conductor must not authorise his Motorman to proceed until such train or engine has passed clear.
- (v.) If a train or engine and a tram should approach the Crossing at or about the same time, it must be distinctly understood that the train or engine will have the right of precedence, but the Driver of the train or engine must in every case act as prescribed in sub-section (ii).
- (vi.) The Tramway authorities will be responsible for the maintenance and lighting of the Stop Indicators and Illuminated Stop Boards.
- (vii.) Any case in which these instructions are not fully carried out must be reported by the Railway or Tramway employes to their respective Superintendents, and should any of the Indicators be not showing properly the Tramway Office must be immediately notified.

(b) At Deepdene No. 1 Road forms the Running Road for Up or Down trains.

(c) The Facing Points on the Single Line at each end of the Station lie normally for No. 1 Road. The Points Facing for Down trains at the Up end of the Stations are connected by rodding to Catch Points in No. 2 Road, and secured by a Staff Lock.

The Facing Points, facing for Up train, at the Down end of the Stations are secured by a hand-bar and padlock.

(d) **Working of Rail Motor between Riversdale and Deepdene and Goods Train between Riversdale and East Kew.—**

- (i.) A telephone is provided at Deepdene and placed in a Box in the open Waiting Room. The Box is secured by a standard padlock, and standard padlock keys must be held by the Train Crew on the Rail Motor, and by the Signalman at Riversdale, and the Rail Motor train, after completing its last trip for the day, is stabled in No. 2 Road at Deepdene.
- (ii.) On days when the 11.30 p.m. Down Riversdale Goods is extended to East Kew the Rail Motor on its last Up trip must run to Riversdale and return from that station to Deepdene on Staff Ticket, and on arrival there will be at once placed in No. 2 Road through the Points at Down end. When this has been done and the Points placed in normal position to lie for the Main Line with Locking Bar properly

## SPECIAL INSTRUCTIONS.

placed and locked in position, also Scotch Block at Down end of Siding locked across rail, the Guard of the Rail Motor must cancel the Staff Ticket and send the code "Acre," adding the words—"Rail Motor in No. 2 Road; Points and Scotch Block secured in position"—to the Signalman at Riversdale.

- (iii.) The Goods train will run on the Staff from Riversdale to East Kew and from East Kew to Deepdene. On arrival at Deepdene on the return journey, the Goods train must be stopped; the Guard must obtain the Staff from the Driver, open the Staff Box, obtain the Staff Ticket Book and issue a Staff Ticket for the Goods train to travel between Deepdene and Riversdale, return the Book to the Box, and after giving the Ticket to the Driver must lock the Staff in the Telephone Box in the Waiting Room.

The Signalman at Riversdale will be responsible for handing the standard padlock key to the Guard of the East Kew Goods, and for obtaining it from the Guard on return of the train to Riversdale. The Signalman will also be responsible for fully instructing the Guard and Driver regarding the procedure to be adopted in connection with Staff Working at Deepdene.

- (iv.) When the last Down Rail Motor travels on Staff, the Guard must collect the Staff from the Driver and lock it in the Telephone Box, the Guard of the first Up Rail Motor must obtain the Staff from the box and hand it to the Driver; before doing so, however, he must communicate with the Signalman at Riversdale, and in the event of the Goods train having run on a Ticket, must obtain the "Acre" message before permitting the Rail Motor to depart.
- (v.) A Train Register Book is provided at Deepdene, and the Guard of the Rail Motor and the Goods train must insert the times of Arrival and Departure of their train, and whether it travelled on a Staff or Ticket. A "Notice of Train Ahead" Book is kept in the Telephone Box at Deepdene.
- (vi.) The Guard of the Rail Motor and Goods train will be in charge of the Staff Working for their respective trains in accordance with Appendix II. Book of Rules and Regulations, and the Supplementary Instructions contained in pages 546-561, General Appendix, insofar as they are applicable.

**3. East Kew.**—(a) An employe will be in charge at East Kew during the hours that the Public Siding is open for business.

(b) A Down Home Signal is provided at East Kew, and the normal position of the Signal will be PROCEED, except when necessary to place it to the Stop position to release the Plunger Locking, or to protect a train arriving with a Staff Ticket.

When a train is scheduled to arrive at East Kew after sunset, the employe in charge must see that the Signal Lamp is lighted and showing properly.

## SUBURBAN SECTION.

(c) When the employe ordinarily in charge is off duty, the Guard of a train working there must attend to the Plunger Locking, and, immediately before leaving, place the Home Signal to the Proceed position.

(d) Between Deepdene and East Kew there are three open Level Crossings, viz., Abercrombie-street, Burke-road, and Argyle-road, and one (Normanby-road—open) at the Down end of East Kew.

Loose shunting of vehicles is prohibited at Normanby-road.

(e) Keys for the Points and Scotch Blocks at East Kew are kept at Riversdale Signal-box, and must be handed to, and obtained by, the Guard prior to leaving Riversdale for East Kew.

**4. Riversdale and Ashburton.**—(a) ASHBURTON—The Down Home Signal must be lighted at night. The normal position of the Signal is Proceed; see clause (b), Rule 3, Appendix II., Book of Rules and Regulations.

(b) On arrival at Ashburton of the train carrying the Staff, the Guard of such train will be held responsible for the Staff Working being carried out in accordance with Appendix II., Book of Rules and Regulations, and the Supplementary Instructions, pages 546 and 561 of this Book.

When a train has to run on a Staff Ticket between Riversdale and Ashburton, the Guard must, on arrival of such train complete at Ashburton, telephone its arrival to Riversdale in accordance with clause 3, page 548 of this Book, and make the necessary entries in the Train Register Book.

**4A.** (a) When the first train in the morning is a Down Goods to Ashburton it will be necessary to despatch the last down Passenger Train to Ashburton, previous night, on a Staff Ticket.

(b) On arrival of the Passenger train at Ashburton the Guard must place the Home Signal to Stop, and if the train is complete send the "Acre" message to Riversdale. When his train has been placed in the extension of No. 1 Road Down end of Yard he must place and lock the Scotch Block across rail and see that a Red light facing Riversdale is displayed on the train. He must then return to Station and place the Down Home Signal to Proceed.

(c) On arrival of the Goods train at Ashburton the Driver must stop at Points in Main Line (Up end) leading to No. 2 Road, and the Guard of the train will obtain the Staff to open the Staff locked Points and turn the train to No. 2 Road. After the whole of the train is clear of the Catch blade in No. 2 Road the Guard must re-set the Points for No. 1 Road, and return the Staff to the Driver.

(d) After completing its work, and prior to the departure of the first Up passenger train, the engine of the Goods train must run around and be placed on its train in No. 2 Road ready to depart on arrival of No. 1 Down Passenger train. The Guard of the Goods train must arrange for this to be done, and after placing engine on its train in No. 2 he must re-set the Staff-locked Points for No. 1 Road and at once deliver the Staff to the Guard of No. 1 Up Passenger train.

## SPECIAL INSTRUCTIONS.

(e) Nos. 1 Up and 1 Down Passenger trains will travel on Train Staff between Ashburton and Riversdale, and the Up Goods will travel on a Staff Ticket.

(f) The Guard of the Passenger train will be in charge of the Staff Working at Ashburton for these trains, and will be responsible for carrying out the Staff Working in accordance with Appendix II., Book of Rules and Regulations, and the Supplementary Instructions, pages 546 to 561 of this Book. He must also arrange that engine of the Goods train turns around prior to Passenger train being brought to Platform, and on arrival of No. 1 Down Passenger train issue a Staff Ticket to the Driver of Goods, and run train out from No. 2 Road. He must not permit No. 2 Up Passenger to depart until the "Acre" message is received from Riversdale for the Up Goods.

(g) Duplicate Keys of the Office Scotch Block and Locking Bars at Ashburton are in the custody of the Signaller at Riversdale, whose duty it is to hand them to the Guard of the Goods train and to remind him in respect of his Train Signalling duties at Ashburton.

**5. TRAINS ON RUNNING LINES WITHOUT A BRAKE VAN IN REAR (REGULATION 232).—**(a) Subject to the instructions contained on pages 472-479, a local Goods train may run between Riversdale and East Kew, and between Riversdale and Ashburton in the Up or Down direction without a Brake Van in the rear.

(b) During the time that the Passenger train between Ashburton and Camberwell consists of two cars, i.e., composite motor coach and driving trailer, permission is granted for the Guard to ride in the Van of the composite coach on the Up journey to enable him to issue tickets as required; in every such case, Rule 23 of Appendix iii., Book of Rules and Regulations, must be complied with before the train departs from Ashburton. The doors of rear Van must be kept locked.

**6.** The attention of Guards is directed to Regulation 230 and to clause 6 of the instructions respecting shunting at and the security of Points, Scotch Blocks, etc., at Caretaker and unattended Stations.

### NOBELIUS SIDING, GEMBROOK LINE.

Nobelius Siding is situate on a heavy falling grade (1 in 40), and before the engine is detached from the train at this Siding, the Hand Brakes on all trucks on the portion of the train left standing on the Running Line must be securely screwed down; in addition, the Hand Brake in the Guard's Van must be used, and the Air Brake also applied.

### CAULFIELD LINES.

In every case in which a Down train—ordinarily run on the Local Line—is to be turned on to the Through Line, the Signaller, South Yarra, must inform the Signaller, Caulfield, and the Station-master, South Yarra; the latter must at once send the message forward. On receipt of the message each Station-master must at once notify the Station-master next in advance.

Station-masters are to have platform staff on the alert for Down Trains on the Through Line.

## SUBURBAN SECTION.

**TOORAK.**

An Electric Freight Lift is provided at Toorak for the conveyance of milk and van goods from the Up "Through" platform to the Goods Yard level. No person other than the Lift Attendant, the Goods Attendant, or other specially authorised official is allowed in the lift. The Station-master must see that the instructions for working and lubricating the Lift are exhibited in the Lift, and observed; see clause 15 of Instructions shown on pages 535-536.

**TOORAK—ARMADALE.****Toorak Goods Yard.**

**1.** The entrance and exit of the Toorak Goods Yard is at Armadale. A telephone is provided at the neck of the yard, so that the Guard or Shunter may communicate with the Signaller, Armadale. The telephone and not the engine whistle must be used when a train requires to leave the Sidings.

**2.** (a) Goods trains requiring to work in the yard at Toorak during Passenger traffic, must not exceed 39 vehicles.

(b) During darkness or foggy weather only one train is permitted in the Toorak Sidings at the same time. When, during clear daylight, it is necessary for a second train to be allowed to enter the Siding, this can only be done under the personal supervision of the Officer-in-Charge of Toorak Station, who will be responsible for taking all necessary precautions to ensure safety. He must first see that the Road is clear for the second train to arrive, and instruct the Driver of the other train in the Siding that he must not move his engine or train until the second train has come to a stand on the Goods Arrival Road.

(c) The Signaller at Armadale must keep a sleeve applied to the lever governing the Facing Points leading from the Up Line to the Goods Yard until the train that is to enter the Siding has been stopped at the Station, or until necessary to despatch a train from the Siding.

**3.** During the time that Passenger trains are running, Up or Down Goods trains requiring to work in the Toorak Yard must be placed in the Goods Arrival Road, and no portion must be left on the Main Line.

Up or Down Goods trains that require to work in the Toorak Goods Sidings must run on the "Through" Lines.

Vehicles must not be permitted to stand on the Goods Arrival Road, which must be kept clear for arriving trains.

The Scotch Blocks must be secured across the rails at the Toorak Sidings, except during the time a train is actually working there.

**MALVERN GOODS YARD.**

Goods trains requiring to work in the Yard at Malvern during Passenger traffic must not exceed 39 vehicles and a Van. Only one train is to be permitted to work in the Malvern Yard at one and the same time.



## SPECIAL INSTRUCTIONS.

### CAULFIELD.

**1.** (a) Every Up Goods train must be stopped at Caulfield by the application of the Air Brake, and, after the train has come to a stand, the Guard must test the Air Brake by applying it from his Van. (vide Rule 23 of the Automatic Air Brake Rules, Appendix iii., Book of Rules and Regulations.)

(b) If, upon making the test, it is found that the Air Brake connection is interrupted, and the defect cannot at once be remedied, the Guard must, before the train is allowed to proceed, fasten down a sufficient number of Hand Brakes to control the train with safety, and, if necessary, the load must be reduced. See clause 10, Air Brake Orders, page 606.

(c) When there are not a sufficient number of vehicles with the Air Brake in operation to enable the train to be properly controlled, as many Hand Brakes as may be required must be fastened down, and, if necessary, the load must be reduced.

**2.** Electric Bell communication is provided between Caulfield "B" Signal-box and the Level Crossing at Grange-road, Caulfield, and Neerim-road, Glen Huntly. For instructions respecting the working of the Electric Bells, see pages 231-232.

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### CAULFIELD—GLEN HUNTLY.

**1. Siding "B."**—(a) The extension of Siding "B" between Caulfield and Glenhuntly is a Goods Running Road, and, as far as practicable, vehicles must not be left standing on this Road after shunting is completed.

(b) In the event of it being necessary in case of emergency to allow vehicles to stand on this Road, the Shunter in charge must first obtain permission from the Signalman at "B" Signal-box, Caulfield, and on granting permission the Signalman at Caulfield must inform the Signalman at Glenhuntly of the circumstances: each Signalman must make a note in his Train Register Book and place sleeves on the levers of Signals leading towards the extension of "B" Siding.

If practicable, the vehicles must be left well clear on Down side of Points leading from "B" to "C" Siding, and be secured by hand brakes. After sunset, or during foggy weather, a Red light must be fixed at each end of vehicles.

(c) When the vehicles are removed, the Signalman at Caulfield "B" must again be advised by the Shunter in charge, and the sleeves may then be removed from the Levers, and the Signalman at Glenhuntly advised.

The time vehicles are cleared to be shown in the Train Register Books at each Signal-box.

(d) During the time that vehicles are standing on the extension of "B" Siding, the Signalman at Caulfield "B" and Glenhuntly must arrange for the Driver of any train or engine proceeding towards the vehicles to be verbally warned.

## SUBURBAN SECTION.

**2. Marshalling.**—Trucks for Glen Huntly must be marshalled at Caulfield and placed at Glen Huntly by the Oakleigh Shunting engine.

**3. Local Goods Trains.**—(a) Down Goods trains for the Mordialloc, Frankston and Stony Point Line, after shunting in the Caulfield Goods Yard, may be permitted to depart at the Glen Huntly end of the yard.

(b) Drivers of Down Goods trains, which are waiting to leave the Caulfield Sidings for the Down Mordialloc Line, must stand clear of the Neerim Road Level Crossing until the Disc Signal, which applies from the Sidings at Glen Huntly to the Down Mordialloc Line, is turned off for the movement. This is to prevent the blocking of Road traffic over the Level Crossing.

(c) Up Goods trains must not be sent into the Caulfield Goods Yard at Glen Huntly, unless circumstances arise rendering such a course imperatively necessary owing to an emergency. The Signalman at Glen Huntly in such case to first confer with Signalman at Caulfield "B" Box and then caution the Driver as to the state of affairs in the Caulfield Sidings.

(d) The maximum speed of any train whilst travelling in the Sidings must not exceed 5 miles per hour.

**4. Caulfield City Council Siding.**—(a) A Dead-end Siding, account the Caulfield City Council, leads off the Glen Huntly Dead-end Siding about 35 yards on the Down Side of the Neerim Road crossing.

A Shed is erected near the end of Siding, the entrance to which is too low for engines to pass through, and a Notice Board, lettered "**Engines must not Pass this Post,**" is erected at the entrance to the Shed.

(b) There is a gate at the boundary fence, and the keys of the Gate, Scotch Block and Points must be obtained from the Signalman at Caulfield "B" Box, by the employe in charge of the shunting operations before commencing to shunt at the Siding, and again returned when shunting completed.

(c) When shunting is being carried on during the hours that Glen Huntly Station is open for traffic, the Guard or Shunter in charge of the operations must arrange to properly protect the Station yard approach road, so that vehicular and pedestrian traffic will be safeguarded.

This Siding, which is supervised by the Station-master, Caulfield, is open for material in truck loads consigned to the Caulfield City Council.

**5. Neerim Road Gates.**—(a) No. 10 Gates at Neerim-road, near Glen Huntly Station, are "Privileged," i.e., they are open for vehicular traffic after the last Time-tabled Passenger train has passed at night until within 30 minutes of the first Passenger train being due in the morning, the Gatekeeper is in attendance from 4.30 a.m. until the last passenger train has passed, about midnight; from midnight until 4.30 a.m. the Gates are locked across the Line.

(b) Whenever it is necessary for a Goods train to work over the Level Crossing between midnight and 4.30 a.m., the Guard or Shunter in charge must obtain the key of the Gates from the Signalman, Caulfield "B" Box, and before shunting operations commence, close the Gates across

## SPECIAL INSTRUCTIONS.

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the public roadway. After the shunting operations have been completed, the Gates must be again opened across the Line and locked, and the key returned to the Signalman.

(c) Before going off duty, the Gatekeeper must see that the Gate Lamp is trimmed and in proper order, and that a Red light is showing along the Line in each direction. In the event of any special train running on the Mordialloc Line, he must remain on duty until it has passed.

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### CAULFIELD—OAKLEIGH.

When it is necessary for an Up Eastern or South-Eastern Line Goods train to stop for any purpose at any Station between Oakleigh and Melbourne, the Guard of such train must advise the Signalman at Oakleigh; under similar circumstances the Guard of any Up Goods train from the Mordialloc Line must advise the Signalman at Caulfield. Signalmen must take such advice into consideration when determining the margin allowed Goods trains ahead of Passenger trains. Delays to Suburban Passenger trains must, as far as is reasonably practicable, be avoided.

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### OAKLEIGH.

The Dead-end Siding, situated between the Siding "D" and the Down Main Line, is provided with a Scotch Block, clear of the fouling point, so as to prevent vehicles running out on to the falling grade towards the exist from the Coal Stage. The Yard Porter must see that the Scotch Block is kept on and locked when there are vehicles in the Siding, and must remove the Block as required for engines or shunting movements.

Drivers, Guards and Shunters are to note the position of the Scotch Block, so as to avoid risk of derailment.

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### NOBLE PARK.

1. A Dead-end Siding is connected to the Up Main Line, at the Up end of the passenger platform at Noble Park.

2. There is a Two-lever Interlocking Frame at the Points and the Points in the Main Line and a Derail Block in the Siding are rodded together and worked by one of the levers. The other Lever controls the Up Home Signal. The Signal Lever is normally secured in the Proceed position by an Annett Lock, the key of which, when not in use, is in charge of the Signalman at "A" Box, Dandenong, who is responsible for its safe custody.

3. The Guard of a train which requires to work at Noble Park must obtain the Annett Key from the Signalman at "A" Box, Dandenong, and the Signalman must telephone to Spring Vale that the Guard is in possession of the key; the Station-master at Dandenong must arrange, whenever practicable, for a daylight train to do the work.

Down loading must be taken on to Dandenong and returned as soon as possible.

## SUBURBAN SECTION.

4. When the train arrives at Noble Park, the Guard must immediately unlock the Signal Lever and place the Up Home Signal to the Stop position. The Point Lever will then be free to work as required. When the train is quite ready to start on its journey, the Guard must place the Point Lever in its normal position, place the Home Signal to Proceed, and lock the Lever controlling the Signal in that position by means of the Annett Key.

5. The Annett Key must be taken on to Spring Vale and delivered by the Guard to the Signalman there, who must arrange for it to be waybilled back to the Station-master at Dandenong, by the first available stopping train. The Station-master at Dandenong is to immediately have the key delivered to the Signalman at "A" Box.

### DANDENONG.

1. (a) "H" SIDING.—This Siding is to be used as a repair Siding, and the attention of all concerned is drawn to Regulation 131, and the instructions shown on pages 389-390 and 393-394.

(b) Before an engine is permitted to leave "H" or "J" Siding and run via No. 5 or 6 Road towards Post No. 10, the Signalman "B" Box must obtain the permission of the Signalman "A" Box, and before such permission is given the Signalmen "A" and "B" Boxes must see that proper measures are taken to control conflicting movements.

2. Siding "C" at Dandenong crosses the Level Crossing at Brighton Road. During the time that shunting operations are being conducted over the Level Crossing the Guard or Shunter in charge must see that pedestrians are warned, and road traffic is kept clear.

See also preceding instructions in reference to Noble Park.

### FRANKSTON LINE.

1. The following instructions apply in regard to the undermentioned intermediate Sidings on the Frankston Line:—

Siding.	Where situated.	Remarks.
Forsyth's Siding (See Note I.)	Leads off the Down Main Line in the Block Section Chelsea-Carrum	These sidings must not be worked during darkness or in foggy weather, nor in the event of the Block Instruments being out of order; unless otherwise ordered the lamps of signals at the sidings will not be lighted at night.
Carrum Sand Company's Siding. (See Note II.)	Leads off the Up Line in the Block Section Seaford-Carrum	
McCulloch's Siding ... (See Note III.)	Leads off the Down Main Line in the Block Section Carrum-Seaford	
Wedge's Siding ... (Frankston Sand Siding)	Leads off the Up Main Line in the Block Section Frankston-Seaford	

## SPECIAL INSTRUCTIONS.

**2. (a)** The Points in Main Line and the Catch Points in the Siding at each of the above Sidings are rodded together and worked from a small frame.

(b) The levers which work the Home Signals from the Interlocking Frame are normally secured in the Proceed position by an Annett Lock, the key of which, when not in use, is in possession of the Officer-in-Charge at the Block Station in the rear, who is responsible for its safe custody.

(c) The Guard of a train which requires to work at any of these Sidings must obtain the Annett Key from the Officer-in-Charge at the Stations as set out hereunder:—

Forsyth's Siding . . . . .	Chelsea
Carrum Sand Company's Siding ..	Seaford
McCulloch's Siding . . . . .	Carrum
Wedge's Siding . . . . .	Frankston

(d) The Officer-in-Charge at the Stations named must instruct the Guard in its use, and telephone to the Block Station in advance, that the Guard (naming the train) has received the key.

(e) When the train arrives at the Siding, the Guard must immediately unlock the Signal Lever and place the Signal at Stop position, the Point Lever will then be free to work as required. When the train is quite ready to proceed on its journey the Guard must place the Point Lever to its normal position, place the Home Signal to Proceed, and lock it in that position by means of the Annett Key. The Guard must be careful to see that the Home Signal goes to the Stop or to the Proceed position, according to the position of the Lever.

(f) The Annett Key must be taken on to the Block Station in advance, and be delivered by the Guard to the Signaller, who must arrange for it to be waybilled to its Home Station by the first available stopping train. The Signaller in advance will be responsible for the safety of the key while it is in his custody.

**Notes — I. Forsyth's Sand Siding.**—As the loading ramps and cross beams of staging at above Siding are not the standard regulation clearance from Line as laid down on page 82, employes engaged in Shunting operations at this siding are reminded of the need for exercising due care when working thereat, and must not ride on trucks on ramped side of the Line.

**II. Carrum Sand Coy. Siding.** — (a) The tracks consist of a is capable of holding 25 vehicles clear of fouling points. The dead end extension of the straight road is capable of holding five vehicles, and a platform for loading purposes is erected thereon.

(b) Inward trucks must be taken delivery of by Siding holders on the Western Siding (Loop), and Outwards trucks must be placed on Eastern Siding properly marshalled in station order, and coupled up with doors closed and secured ready for straight pick up, and with the first truck out opposite or ahead of notice board.

(c) A notice board, lettered, "ENGINES MUST NOT PASS THIS POST," is erected clear of the fouling point at Up end of Sidings, about 280 feet inside Hand Points, and a notice board, lettered "VANS, CARS, HIGH-SIDED

## SUBURBAN SECTION.

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TRUCKS, AND TRUCKS LOADED ABOVE WATER LEVEL MUST NOT PASS THIS POST," is erected 200 feet from Points at Down end of Sidings. All such Notices must be obeyed by Train Crews.

**III. McCulloch's Siding.**—Only vehicles having low sides, such as standard "I" trucks, must be placed in this Siding. A board, lettered, ENGINES MUST NOT PASS THIS POST, marks the point beyond which engines must not pass on either "A" or "B" Sidings. Empty trucks must be placed in the Right Hand Siding (B), and the loaded will be made available in the Left Hand Siding (A). The loaded, when picked up, must be taken on to Seaford.

The Points in the Main Line and the Catch Points in each of the Sidings are rodded together, and worked from a small frame.

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### SEAFORD.

**1. McCulloch's Private Siding.**—(a) This siding leads off the Refuge Siding at Down end of Seaford Station, and crosses the Level Crossing at about 400 feet distance from Refuge Siding, and 180 feet back from Main Lines.

(b) The tracks consist of a straight road extended to Buffer Stops, and a Loop Siding. Each Siding is capable of holding 27 vehicles clear of fouling points. The dead end extension of the straight road is capable of holding six vehicles.

(c) Notice boards, lettered "ENGINES MUST NOT PASS THIS POST," are erected clear of the fouling point at Up end of both Sidings.

(d) Inward trucks must be taken delivery of (by Siding Holders) on the Eastern Siding (straight road), and Outwards trucks, properly marshalled in Station order, and coupled up with doors closed and secured ready for straight pick up, and with the first truck out, must be placed on Loop Siding opposite Notice Board.

(e) Train crews must exercise every care when passing over the Level Crossing, and the Driver must make frequent use of his train whistle.

The speed of the train when passing over the crossing must not exceed five (5) miles per hour.

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### MOOROODUC.

**Frankston and Hastings Shire Council's Siding.**— This Siding is situate at mileage 36 on the Up side of Moorooduc Station. The Points in the Main Line and Catch Points at exit from the Siding are rodded together, and worked by a ground lever near the Main Line Points, the latter being secured by a Staff Lock, the key of which is the Staff for the Section Baxter—Mornington.

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### GRIB POINT STATION.

#### Naval Base Siding.

**1. (a)** The above Private Line leads from the Up end of No. 2 Road at Grib Point Station, and is worked under the Train Staff and Ticket System; unless Special instructions are issued to the contrary, the Driver of every train or engine, travelling on the Line, must be in possession of the Train Staff; see clause 15, page 559.

## SPECIAL INSTRUCTIONS.

(b) The length of the Line is  $1\frac{1}{4}$  miles from Crib Point Station. There is a Loop Siding 500 feet in length clear of fouling points at  $\frac{3}{4}$  of a mile from Crib Point, and a Dead-end Siding about 200 feet in length at 1 mile 1 chain 87 links.

(c) Engines must not proceed further along the Naval Base Line than shunting operations require at the Loop Siding at three-quarters of a mile on the Down side of Crib Point. A Notice Board with lettering "**Engines must not pass this Board,**" has been erected at the Down end of the Loop. Enginemen, Guards, and other employes to note accordingly.

(d) The Line is unfenced, and cattle pits are provided at the Public Crossing at Up end of Crib Point Station, and one pit at the railway boundary fence. There are no mile posts on the Line.

2. (a) Ordinarily a Gate is placed across the Railway Line between Crib Point Station and the Naval Base Depot, 200 yards from the Siding Platform, to prevent animals straying into the Naval Base reserve.

(b) The Gate will be attended by Naval Base authorities, but Drivers proceeding towards the Naval Base must keep a sharp lookout when approaching the Depot, and when necessary stop engine or train clear of the gates.

### NEWMARKET—TRUCKS ON UP TRAINS FOR.

1. The loads which can be pushed from the Up Main Line into the Newmarket Yard are as under:—

Engine Capacity.	Tons.	Engine Capacity.	Tons.
Per cent.		Per cent.	
205	646	75	236
130	410	70	221
128	403	65	205
113	356	60	189
100	315	53	167
90	284	—	—
85	268	—	—
80	252		

*NOTE.—Every Up North-Eastern Goods must be stopped at Broadmeadows for the purpose of testing the Air Brake Apparatus. See special instructions under Broadmeadows, page 887.*

2. When it is necessary for any Up Goods train to shunt at Newmarket at a time when the Running Lines are required for Passenger trains the Guard must inform the Station-master, Broadmeadows, and the latter must then telephone the information to the Signalman, Essendon. If the load of the Goods train exceeds that specified above, the Guard must so inform the Station-master, Broadmeadows, giving at the same time the total number of trucks for Newmarket, and the Station-master must then communicate these particulars by telephone to the Signalman, Essendon, and by telegraph to the Station-master, Newmarket.

## SUBURBAN SECTION.

3. When the Up Goods, which requires to shunt at Newmarket, arrives at Essendon, the Signalman must not allow the Goods train to proceed until he has obtained permission from the Signalman, Newmarket; and the latter must not give such permission until he can deal with the Goods train without causing delay to any Passenger train.

4. The Station-master, Newmarket, must repeat to the Signalman, Newmarket, the particulars received from Broadmeadows, and must, if necessary, arrange for the train to be assisted into his Yard with the local Shunting engine, or, if this engine be not available, he must arrange to procure an engine from the Melbourne Yard for the purpose.

5. No train must be uncoupled for shunting purposes at Newmarket Junction. When required to detach Live Stock vehicles, the whole of the train must, if practicable, be shunted to the Cattle Yards. If this cannot be done without causing delay, it must be sent on to Weighbridge Junction, where the Newmarket loading must be detached, and returned promptly, or as soon as circumstances permit; the Signalman, Newmarket Junction, to advise Kensington, and the latter Weighbridge Junction.

6. Particulars to be shown in Train Register Book at Broadmeadows, Essendon and Newmarket.

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### FLEMINGTON RACECOURSE LINE.

1. **Newmarket Cattle Yards and Royal Agricultural Show Grounds, Flemington Racecourse Line.**—(a) The Newmarket Cattle Yards and Show Grounds Platforms and Sidings are situated on the Flemington Racecourse Line, which branches off the Essendon Line at Newmarket; except during Race traffic, Show traffic, or other special traffic, the Up and Down Racecourse Lines are worked as Sidings, with Catch Points at the Up exit ahead of Post 13, and Dwarf Signal No. 12.

Signals that are not in use during ordinary conditions (when special traffic is not being worked) are crossed as per Regulation 91.

During special traffic, R201 will be an Automatic Signal. At other times, the Automatic Indication A will be removed and this Signal will be controlled from Shunters' Cabin.

(b) Special instructions are issued by the General Superintendent of Transportation whenever the Racecourse Line is to be used for special traffic. During the time that Special Passenger traffic is run over this line, the Catch Points in Up Line ahead of Home Signal, Post 13, Newmarket Junction must be set for the Running Line and properly secured by the responsible officer of the Signal and Telegraph Branch.

(c) Except during the time that special traffic is being conducted in accordance with sub-clause (b) hereof, or by direction from, and in the presence of a responsible officer, no Electric train must be permitted to proceed in the Down direction beyond the first structure (No. 202) of the Tensioning Point opposite Newmarket Substation.

In the event of it being necessary to place a disabled Electric train on the Down Line between Newmarket and above Tensioning Point, the



## SPECIAL INSTRUCTIONS.

Signalman at Newmarket must first obtain permission for the movement from the employe in charge of the Cattle Yards, and the latter employe must take steps to see that the above instruction is complied with.

(d) LEVEL CROSSING.—A level crossing (Ascot Vale-road) is located at the centre entrance to Cattle Yards. Drivers and other employes working with Goods trains or engines must exercise due care in respect of this crossing.

**2.** Except as shown below, the Running line between Newmarket Junction and the first Cross-over in the Racecourse Line (ahead of Automatic Signal R 205) must be worked as Up and Down Lines (see Regulation 175, clause (a).)

Exceptions.—(a) On days other than when the Lines are being used for Passenger traffic, the Yard Foreman at the Cattle Yards may (should emergency arise) authorise the Signalman at Newmarket Junction per telephone to permit a Down shunting movement from the Junction in the direction of the Cattle Yards via the Up line. The Yard Foreman will be held responsible for the safety of the WRONG LINE MOVEMENT authorised by him and must, before giving authority for any such movement, see that the Up Line between Newmarket Junction and the Cross-over leading from Up to Down Line ahead of R204 (Up Automatic) is clear.

Should it be necessary for a train to proceed beyond the Cross-over towards Ascot Vale-road the Yard Foreman concerned must make adequate arrangements for the safety of the movement.

NOTE.—The instructions on page 142, relating to the working of telephones, must be strictly observed by the Yard Foreman and Signalman, the latter to enter the message in the Train Register Book across the figure line, immediately following the last entry made.

**3.** Except during special traffic, Drivers of Up trains or Light Engines, when proceeding from Ascot Vale-road, must stop clear of fouling point of the Cross-over referred to in sub-clause (a) of clause 2 hereof, and not proceed until they receive permission to do so from the Yard Foreman or Shunter in charge.

**4.** Before permitting any movement from the Down Line or from the Up end of the Cattle Yards or Independent Sidings towards Two-position Light Signal R.201, the Yard Foreman in charge of the Cattle Yards must first confer with the Signalman at Newmarket Junction in order to obviate the possibility of the Junction being blocked by an approaching train, and, in addition, before permitting the movement he must place R. 201 Signal to the Stop position, and then instruct the Driver that he must not proceed beyond such Signal.

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### ESSENDON.

**1. Through and Local Traffic.**—Down trains not booked to call must, as far as practicable, be worked via No. 2 Road and Up "Through" trains via No. 1 Road; No. 4 Road must not be used for "Through" traffic, except in the case of a Goods train, and then only to avoid a serious interruption to traffic.

## SUBURBAN SECTION.

**2. Level Crossing Blocked by Goods Trains.**— (a) When, in order to give precedence to a more important train, a Down Goods train is detained on No. 2 Road and the Goods train is foul of the Level Crossing and likely to cause delay to vehicular traffic, the Goods train may, subject to the following instructions and Block Rule 15, be drawn forward on the Up Line a sufficient distance to clear the Crossing.

(b) The Signaller must, after instructing the Guard of the train, properly set the Points for the movement, and then inform the Station-master, so that he may notify the Driver of what is required to be done, and instruct the Driver to look out for the Guard's Signal to draw sufficiently ahead to clear the Crossing.

(c) When the Driver has drawn ahead on the Up Main Line in obedience to the Guard's Signal, he must not set back until properly signalled by the Signaller to do so.

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### GLENROY.

Shunting, etc., by Goods trains at Glenroy, must be performed by the Suburban Goods train; the work is to be done on Up journey only. Trucks for Glenroy on Up or Down North-Eastern Goods train must be placed at Broadmeadows for the Suburban Goods trains.

At Glenroy, vehicles must not be left detached from the train on the Main Line unless the Hand Brake on every such truck has been fastened down. Before the engine is uncoupled, the Guard must satisfy himself that the Van Brake has been put on securely, and the Hand Brakes properly applied on all vehicles fitted with such in order to prevent any possibility of the train or vehicles moving away. The Air Brake must also be applied to the portion of the train left standing on the Running Line.

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### GLENROY AND BROADMEADOWS.

If a Down train comes to a stand on the rising grade between Pascoe Vale and Glenroy, and the load has to be divided owing to the inability of the engine to take the whole forward, no part of the divided train must be placed in the Catch Siding, which is situate on the Up side of Glenroy Station, but the front portion or portions of the train must be taken on to Broadmeadows. Clause (g) of Regulation 243 must be observed, and every care must be taken in regard to the Catch Points when running in the wrong direction.

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### BROADMEADOWS.

**Refuge Siding.**—The Points in the Main Line and the Catch Points in the Refuge Siding, which leads off the Down Main Line at the Down end of the Station Yard at Broadmeadows, are rodded together and worked by a lever fixed on the left-hand side of the Down Line. Before giving a Hand Signal for a train to enter or leave the Siding, the employe in charge of the operation must see that all the Facing Points are properly set, that the lever which governs them is close home to the frame, and that the catch is firmly down in the notch, and so kept until the whole of the train has passed. The Point lever, in its normal position, is cross-locked from the Signal-box, and must be restored to its normal position immediately after the train has cleared the Points.

## SPECIAL INSTRUCTIONS.

### BROADMEADOWS TO ESSENDON.

#### Up Goods Trains.

**1.** Each Up Goods train must be stopped at Broadmeadows Station by the application of the Air Brake, and after the train has been brought to a stand, the Guard must test the Air Brake by applying it from his Van. See Rule 23, Appendix III., Book of Rules and Regulations.

**2.** If it be found when the test is made that the Brake connections throughout the train and with the engine are perfect, and the Driver is satisfied that the Air Brake will properly control the train down the grade, the train may proceed; but its speed when approaching the foot of the Up grade at Mileage, 7 miles from Melbourne, must not exceed a rate of 35 miles per hour. This will enable the Driver to regulate the speed of the train up the grade to mileage  $5\frac{1}{2}$  miles from Melbourne, where it must not exceed a rate of 10 miles per hour.

**3.** If the Guard upon making the test find that the Air Brake connection is interrupted, he must communicate the fact to the Driver, and in the event of it not being possible to remedy the defect, the train must be worked in accordance with clause 10 of the Air Brake Orders. See page 606.

### BRIGHTON LINE.

#### Working of 11.50 p.m. Down and 3.15 a.m. Up Goods Trains between Windsor and Brighton Beach.

**1.** (a) The Signal-boxes at Prahran, Windsor, Ripponlea, Elsternwick, North Brighton, Middle Brighton, Dendy-street and Brighton Beach, are continuously staffed only from approximately 5 a.m. to 12.25 a.m. daily. There are three Signalmen at Windsor, who work early, late, and night shifts. The Signalman on the night shift, after the 11.50 p.m. Down Goods has completed shunting there, will accompany the train and operate the Signal-boxes at Ripponlea, North Brighton, Middle Brighton, Dendy-street, and travel with the Light Engine to Brighton Beach, and work the Signal-box there to enable the engine to return on the Up Road to Dendy-street. The same procedure will be adopted on the Up journey should the Goods train return prior to the early shift Signalman at the Boxes concerned coming on duty.

(b) A Yard Porter, who has been passed in the Frame at Elsternwick, will work the Signal-box at that station for the 11.50 p.m. Down, and, after securing the Gates, will accompany the train to assist with the shunting. He will also work the Signal-box for the 3.15 a.m. Up.

(c) Permission is granted for the Signalman from Windsor, and the Yard Porter from Elsternwick, to ride on the engine of the Down and Up Goods in connection with this work.

**2.** In the event of the 12.55 a.m. Down Windsor Goods running in addition to the 11.50 p.m., the late shift Signalman at Prahran and Elsternwick will remain on duty until the train has been dealt with. The night shift Signalman from Windsor is to accompany the 11.50 p.m. Down, as above, and an adult Porter, who is qualified, will work the Signal-box at Windsor in connection with the 12.55 a.m. Down.

## SUBURBAN SECTION.

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### WINDSOR.

Goods trains must not shunt at Windsor during the time Suburban Passenger trains are running.

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### ELSTERNWICK.

During the time a locomotive is in either "A" or "B" Siding, the Signalman must not permit a second engine or train to enter Siding "A," except by permission of the Yard Porter or Station-master, who will be held responsible for the safety of the movement.

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### NORTH BRIGHTON.

1. (a) An Annett Key controlling the Cross-over at North Brighton is secured in a Switch Lock, enclosed in a glass case, fixed in the Signal-box. To withdraw the Annett Key it will be necessary to break the glass and turn the key in the lock.

(b) The withdrawal of the key from the Switch Lock places Signals B369, B388 and B404 to the Stop position, and maintains them in that position until the Annett Key is secured in its normal position in the Switch Lock.

2. The Cross-over is provided for emergency purposes, and, when necessary to use it, the Signalman must arrange for the Cross-over to be protected.

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### MIDDLE BRIGHTON.

#### Substation Siding.

1. The Points in the Up Line at Middle Brighton leading to the Substation Siding on Up side of the Station are rodDED to a Deraill in the Siding, and secured by an Annett Lock, the Annett Key is normally secured on the lever controlling Signal B430 in Middle Brighton Signal-box; the removal of the key from the lever secures Signal B430 at the Stop position, and the reversal of the Points at Siding also places and locks Signal B420 at the Stop position.

2. In the event of an engine entering the Substation Siding, the Guard must protect any movement from the Siding; if, however, a portion of a train be left standing on the Up Line, between the Station and the Siding, it will not be necessary to protect the engine movement from the Siding.

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### MONTAGUE GOODS DEPOT.

1. (a) Between Inglis-street Signal-box and Montague Station, parallel with the Main Line, there are two tracks. These tracks must be regarded as Up and Down Lines, and Drivers must travel on the proper Line; see Regulation 175.

(b) A Disc Signal placed at the neck of entrance to the Shed and Yard Roads governs all movements into those Roads, and will be worked by the Shunter in charge, who will be responsible that the Points are

## SPECIAL INSTRUCTIONS.

set for a clear road for the approaching train before turning off the Disc. Telephone communication is provided between Inglis-street Box and Shunter's Cabin, situate at entrance to the Yard.

(c) A loud-sounding Gong, which is placed on the Shunter's Cabin, and operated by the Signalman, Inglis-street, will notify the Shunter when trains are entering from Inglis-street. When trains are being pushed from Inglis-street towards the Yard, the train must be stopped in ample time when the Disc is at the "Stop" position. All shunting movements from the Shed or Yard Roads must be made towards the Departure Road.

### GRAHAM.

**1. Trains to or from the Port Melbourne and Prince's Pier Lines.**—At Graham the Signalman must not allow any train or engine to or from the Pier Lines or Goods Line whilst an Up train is standing at the Home Signal (Post No. 35 Up Passenger Platform) unless the Up train be delayed through accident, failure, or from some other cause, in which case the Station-master may, after having informed the Driver of the Up train of the action he proposes to take, authorise the Signalman to allow the Branch Line train to proceed.

**2. Down Goods Trains.**—(a) The Yard Foreman at Flinders-street must advise the Signalman at Flinders-street "A" Box when there is perishable loading on a Down Port Melbourne Goods train, and the latter must repeat the information to the Signalman at Graham. The Signalman at Graham must arrange for any such Goods train to proceed down the Main Line unless a satisfactory arrangement has been previously made with the Pier-master for it to proceed via the Goods Loop

(b) A Down Goods train without any perishable loading must, whenever it is reasonably practicable, be sent via the Goods Loop, after the Signalman at Graham and Port Melbourne "A" Box have conferred and agreed that the Line is clear and safe for the passage of the train.

(c) The speed of any Down Goods train over the Goods Loop must not exceed a rate of 5 miles per hour.

(d) The Signalman at Graham must not allow a Down Goods train to proceed into the North Goods Siding unless he has been first instructed to do so by the Pier-master, and the Pier-master before giving any such instruction must arrange for the Points to be held and satisfy himself that the Road is clear.

**3. Goods Loop and North Goods Siding.**—(a) Drivers, Guards, and Shunters are warned to keep a good lookout when approaching Graham from the Goods Loop or the North Goods Siding, as these Roads foul each other before reaching Posts Nos. 26 and 27. A good lookout must also be kept regarding opposing operations that may be in progress in both Up and Down directions from the Main Line and the Bridge-street Goods Roads on the one hand, and the Goods Loop and the North Goods Siding on the other.

(b) There are Hand Points at the Junction of the Goods Loop and the North Goods Road in the Up and in the Down direction, and the normal lie of the Facing Hand Points, on the Up jourey, is towards the Main Line. The Points must, therefore, be held when the train or engine is to go towards the New Pier Line.

## SUBURBAN SECTION.

Whenever it is necessary for a movement to be made from these Sidings to the New Pier Line, a Shunter or other competent employe will require to hold the Hand Points for such movement, and the Signalman must not exhibit the Signal for a train or engine to proceed in that direction until he has received a Hand Signal from the Shunter at the Points.

(c) The normal lie of the Facing Hand Points on the Down journey, from the Main Line and the Bridge-street Sidings, is for the Goods Loop, and they will have to be held when the destination of the train or engine is to the North Goods Siding.

**4. Regulation 232—Prince's Pier — Graham (Bridge-street Sidings).**—(a) Authority is given for Goods trains to run without a Brake Van in the rear on Up or Down journey between Prince's Pier and Graham, maximum number of vehicles must not exceed 35.

(b) The train may be run between the abovementioned places without the Air Brake being connected through the train when it is not practicable to connect the Air Brake; the instructions contained in sub-section (i), sub-clause (d), of clause 4, page 478, and clause (1) and sub-clauses (a) and (b), of clause 2, page 601, are modified to this extent.

(c) A competent Shunter or a Guard must, in all cases, ride on the rear vehicle, and personally inform the Signalman at Graham or Prince's Pier, as the case may be, that the train has arrived complete, with the Tail Disc or Light attached. The employe who rides on the rear vehicle must carry a Red flag by day and a Hand Lamp at night, and six Detonators by day or night, so as to be able to protect the Line, in accordance with the Regulations, in the event of it being necessary to do so.

(d) The Signalman at Prince's Pier and Graham must promptly report any case of neglect by Guards or Shunters to comply with sub-clause (c) hereof.

See also special Instructions respecting the Swallow-street Level Crossing under the heading of Port Melbourne New Pier Lines, page 891.

### PORT MELBOURNE STATION.

#### (Railway Pier.)

**1.** (a) All Lines beyond the Footbridge at Down end of the Bay Excursion Road have been temporarily closed against railway traffic, and, except as prescribed in clause (b) hereof, no train or engine must be allowed to pass beyond the Footbridge referred to.

A Terminal Notice Board is erected on the Bay Excursion (extension of No. 1) Road at Port Melbourne Station. Drivers, Guards and Shunters must see that the Notice, which reads as shown hereunder, is observed:—

ELECTRIC TRAINS  
MUST NOT PASS  
THIS POST.

## SPECIAL INSTRUCTIONS.

**2. Passenger Trains to Bay Excursion Platform.** — (a) When a Passenger train is required to run direct to the Pier Platform without stopping at Port Melbourne Station Platform, the Officer in charge must so inform the Signalman, and if the Line be clear the Signalman must exhibit the proper Fixed Signal. If the proper Fixed Signal is exhibited on Post No. 19 the Driver must accept this as an intimation that the train is required to run to the Bay Excursion Platform as far as the footbridge at the Down end.

(b) The Officer-in-charge, Port Melbourne, will be responsible for all Points over which Passenger trains are required to run, being secured before informing the Signalman, as laid down in clause (a), and also for adopting all necessary precautions to ensure the safe movements of Passenger trains to or from the Bay Excursion Pier.

(c) The speed of the train between the Station Platform and the Bay Excursion Platform must not exceed a speed of 10 miles per hour.

### PRINCE'S PIER LINES, PORT MELBOURNE.

**1. The Swallow-street Level Crossing.**—(a) This Crossing is immediately ahead of the Down Starting Signal, Graham (Post No. 14), and is equipped with Gates. The Gates are normally closed across the Lines and secured in that position by padlocks. The Shunter-in-Charge of each shift has a key to the padlocks, and a duplicate key is in the possession of the Signalman at Graham. Each employe is responsible for securing the Gates after using them and for the custody of the key. The Shunter-in-Charge will be held responsible for seeing that a Red Light is properly showing on the Gate during the time trains may require to run on the New Pier Line at Night.

(b) When any Passenger train is to run to or from the Pier, the Station-master must instruct a competent employe to act as Gatekeeper at Swallow-street and to warn pedestrians of approaching trains. The man appointed as Gatekeeper must, on each occasion, sign on and off duty in the Train Register Book at Graham Signal-box.

(c) The Station-master must arrange for a Shunter to attend to the Gates and foot-crossing, when necessary, for the passage of any engine or Goods train, except when a man is stationed at the Gates in accordance with the preceding clause.

(d) The Signalman, Graham, must not exhibit the Signal on Post No. 14 for a train or engine to proceed towards "B" Box until the train or engine has been brought to a stand at the Signal, except when a Gatekeeper has been stationed at the Swallow-street Crossing in accordance with clause (b). A Sleeve must be specially used for the Lever of this Signal.

**2. Pier Roads and Hand Points.**—The Signalman at "B" Box must not exhibit any Signal to permit a train or engine to enter any of the Pier Lines until permission has been obtained from the Pier Foreman or other responsible employe in charge, who before giving permission for a Passenger train to enter on any of the Pier Roads, must see that the Line is clear to the point the train is required to run to, and that all Hand Points leading to and from such Line are secured

## SUBURBAN SECTION.

in the proper position by means of the chains and padlocks provided for that purpose. The following instructions must also be observed:—

- (a) Should any employe become aware of a defect in the Lines or the gear of Hand Points, he must at once inform the Signalman, and take steps to prevent the use of such Lines or Points until they have been made safe for the passage of trains.
- (b) Chains and padlocks are provided for the purpose of securing the Hand Points over which any Passenger train may require to pass when proceeding on to the Pier Lines. These Points, and also any Hand Points leading to the Roads on which a Passenger train may require to run, must be properly secured before any such train is permitted to pass on to any of the Pier Lines. The keys, when not required for the purpose specified, are in the care of the Signalman, "B" Box.
- (c) The Station-master must appoint a competent employe to attend to the duties laid down in the preceding clause, and when the Passenger train has returned and the Locks, etc., are no longer required, such employe must return the keys to the Signalman. The padlocks must be locked into the bolts or chains before the keys are returned to the Signalman, Box "B," who will be held responsible for seeing that the full number are handed back, and for the custody of the keys until they are again required.
- (d) When an Up Passenger train is to be despatched from No. 4 Road, the Pier Foreman must see that the Hand Brakes on all trucks on the Eastern section of No. 3 Road are applied and the Brake Lever secured, and if there be an engine on the South side of the Pier, other than the engine of the Passenger train, the Pier Foreman must post a competent man on the Pier, equipped with a Red Hand Signal, at the Up end of No. 3 Road, with instructions to protect the Passenger train leaving No. 4 Road. The Signalman must not exhibit the Signal for the Passenger train to leave No. 4 Road until he has ascertained that these instructions have been complied with.
- (e) SECTION SWITCHES.—The keys of the locks securing the switch handles of switch 8 over 5 and 6, controlling No. 4 Road, and switch 8 over 5 and 7, controlling No. 5 Road, are in the custody of the Signalman, Box "B," who is responsible for the operation of such switches, subject to the following instructions:—
  - (i.) Whenever a Passenger train is required to proceed on to the Pier, the Signalman will be responsible for closing and securing the Section switches according to requirements; before either of the Section switches are placed to the closed position, the Pier Foreman must arrange to have all Hand Points secured for the passage of the train, and set so as to prevent trucks from fouling the electrified Line. In every case the Line on which the train will arrive must be clear of



**SPECIAL INSTRUCTIONS.**

trucks from the entrance to a point directly opposite the Pier Foreman's office. The switch or (if the electrified Lines on each side of the Pier are to be used) switches must not be closed until the employe who is responsible for the securing of the track has informed the Signalman that the foregoing instructions have been complied with; should, however, it be necessary for vehicles to be left in either of the Roads about to be used for the arrival of the passenger train, the Signalman must, before permitting the train to enter, comply with Regulation 109.

**NOTE.**—Attention is directed to clause (a), Regulation 133, which must be strictly observed.

Stop boards are erected on the Pier, beyond which an Electric train must not proceed, as the Roads are not wired beyond these points.

- (ii.) Before exhibiting a signal for an Electric train to proceed on to the Pier, the Signalman must see that the Section switch (or switches, if both lines are required) are set and secured in the proper position, and the switch keys are in his possession.
- (iii.) After the last Passenger train has been despatched from the Pier, and before the Hand Points are unlocked, the Pier Foreman must arrange for the Signalman to restore the switches to their normal position (open).

Should it be necessary at any time during the day, between the running of Passenger trains, to make either of the electrified Lines dead for loading or unloading purposes, the Pier Foreman may arrange with the Signalman for this to be done; in every such case, however, the Pier Foreman must first see that the necessary switch (or switches) is secured at the "Open" position—see Diagram showing respective positions of switch handles, page 56—he must take possession of the switch key (or keys) and retain them until he is prepared to permit the switches to be closed.

- (iv.) Immediately after the operation of either of the Section switches, the Signalman must report the fact to the Control Engineer.
- (v.) Should it become necessary to close a switch for testing purposes, such switch must not be operated until the Pier Foreman has been advised, and he has given permission for the switch to be closed.

**NOTE.**—The use of slings for the purpose of loading or unloading from either of the electrified Lines or Passenger platform on Pier is strictly forbidden, and the Pier Foreman must take action to prevent their use on these Roads.

## SUBURBAN SECTION.

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**3.** In view of the risk of damage to the operating gear of Hand Points by vehicular traffic on the New Pier, the gear of the Reversible Levers is fixed under the decking of the Pier, and chain-pulls are provided by means of which the Reversible Levers can be operated as required from the surface, by employes concerned. In each case the chain-pull is situated near the Points with which it is connected, and the handle rests in a metal socket recessed in the decking of the Pier. To reverse the Points it is necessary to pull up the chain to its limit and then release it.

Shunters and others engaged in movements must, on arrival at the New Pier, note which of the Points are equipped with chain-pulls, and take time and care to see that the Points are set in the proper position before allowing any engine or vehicle to pass over them.

**4. Passenger Concourse.**—Drivers in charge of Passenger trains must not accept a Signal to proceed on any of the Pier Lines except those applicable to the Passenger Platform Roads (No. 4 or 5), and must be careful to stop their trains clear of the Cross-over at the Down end of the first Passenger Platform.

**5. Lighting Signals, Etc.**—In the event of any train having to run on the Pier between sunset and sunrise, the Station-master must arrange for the necessary Signals and Point Indicator Lamps to be lighted, and for a Red light to be exhibited as required on the Pier.

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### ALBERT PARK.

**1.** (a) An Annett Key controlling the Cross-over at Albert Park is secured in a Switch Lock, enclosed in a glass case, fixed in the Signal-box. To withdraw the Annett Key it will be necessary to break the glass, and turn the key in the lock.

(b) The withdrawal of the key places Signals K. 107 and K. 114 to the "Stop" position, and maintains them in that position until the Annett Key is again secured in its normal position in the Switch Lock.

**2.** The Cross-over is provided for emergency purposes, and where necessary to use it, the Signalman must arrange for the Cross-over to be protected.

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### ST. KILDA.

**1.** (a) There is a Traverser at the end of the Passenger Platform Road, and a Disc Signal works in conjunction with it. In its normal position the Traverser is ready to receive an engine from the Passenger Platform Road, and it must always be returned to its normal position immediately after an engine has been traversed.

(b) When an engine has been traversed, the Engine-driver must not move the engine from the table until verbally instructed to do so by the employe in charge of the Traverser.

**2.** When the Traverser is in its normal position, the Disc Signal is shown in the day time by the Red Disc being turned off, and at

**SPECIAL INSTRUCTIONS.—SUBURBAN SECTION.**

night by a Yellow light. When the Traverser is not in its normal position, the Danger Signal is shown in the daytime by the Red Disc, and at night by a Red light.

When owing to any cause the Driver of a train or an engine is authorised by the Signalman to follow another train or engine out on the Platform Road, the conditions laid down in Regulations 110 and 111 must be observed.

(b) When the Traverser is again in working order the Fitter in charge of the repairs must inform the Signalman, and the latter must make an entry to that effect, which the Fitter must countersign, in the Train Register Book. The Printed Order (Form A) must be then withdrawn and cancelled by the Signalman, who must at the same time issue Form B to the employe in charge of the Traverser. Each of the Forms after having been dealt with according to instructions must be forwarded with the Train Register Book in the ordinary course to the Block and Signal Inspector.

(c) If the Order be still in force when the Signalman who issued it is relieved, he must see that the Signalman relieving him countersigns the Order before he takes charge of the Box; the man in charge of the Traverser must proceed to the Box for the purpose.

*Specimen of Form Referred to in clause 3.*

FORM "A."	
ST. KILDA SIGNAL BOX,	
.....19....	
<b>FOLLOW-OUT ORDER. FAILURE OF TRAVERSER AT END OF No. 1 ROAD.</b>	
<b>TO ENGINE-DRIVERS IN No. 1 ROAD AT ST. KILDA—</b>	
In consequence of the Traverser being out of order, you are hereby authorised, after perusing this order, to follow the train as far as the first Fixed Signal, subject to the Regulations and Instructions for following out. (See Regulation 111). This order commences with the engine of No. .... Down train, and will continue to be in force until cancelled by the issue of Form "B."	
This order must be shown by the employe in charge of the Traverser to all Engine-drivers who have to follow out.	
This order must be collected by the Station-master when Form "B" is issued. He must cancel and deliver it to the Signalman.	
(Signed) .....	Signalman.
(Countersigned) .....	Station-master.
(Countersigned) .....	Employe in charge of Traverser.

## Rolling Stock.

Table giving the Various Classes, Number of Vehicles in each class, carrying capacity, and description and dimensions of Rolling Stock.

Class and Distinguishing Letter.	No. of Vehicles in Class.	Description.	Capacity.	Average Tare.			
			Passengers	T.	C.	Q.	Lb.
PASSENGER ROLLING STOCK (BOGIE).							
RAIL MOTOR 1st class	7	45 H.P. .. ..	32	6	4	0	0
RAIL MOTOR 2nd class	8	" .. ..	37				
RAIL MOTOR Composite R.M.	4	" .. ..	16 1st 16 2nd				
TRAILER 2nd class	3	Small Van Compartment ..	28	3	6	2	0
	18	Large Van Compartment ..	24				
D.E. RAIL MOTOR	4	Fitted with Lavatory and Van ..	27 1st 29 2nd	16	0	1	0
SPECIAL	1	Norman .. ..	30	35	5	1	0
"	1	State No. 1 .. ..	26	37	8	0	0
"	1	Melville .. ..	29	26	1	0	0
"	1	Carey .. ..	19	24	15	2	0
"	1	State No. 4 .. ..	25	46	17	2	0
"	1	Victoria .. ..	20	23	17	0	0
"	2	Murray and Yarra (Parlor) ..	33	35	0	0	0
"	3	Goulburn, Wimmera and Campaspe (Dining) ..	42	44	14	0	0
"	2	Avoca, Hopkins (Dining) ..	48	59	9	1	0
"	1	Vision Test, 3 Compartments ..		22	2	3	0
"	1	Avon—Combined Dining and Sleeping—Diners ..	12	34	18	0	0
"		Sleepers ..	12				
"	2	Kiewa, Latrobe (Sleeping), 8 Compartments ..	20	33	13	3	0
"	2	Buchan, Wando (Sleeping), 10 Compartments ..	20	41	10	3	0
V. & S.A. JT. STOCK	1	Coliban .. ..	20	43	12	1	0
"	1	Acheron .. ..	20	41	17	2	0
"	6	Inman, Angas, Baderloo, Pekina, Tambo Dargo ..	20	40	8	0	0
"	6	Loddon, Glenelg, Finnis, Torrens, Onkapinga, Barwon, 10 Compartments ..	20	39	6	0	0
AE JT. STOCK	10	8 compartments .. ..	48	38	10	0	0
BE JT. STOCK	10	9 compartments .. ..	72	38	10	0	0
AE (Vict.)	32	8 compartments .. ..	48	38	10	0	0

## ROLLING STOCK.—PASSENGER.

Class and Distin- guishing Letter.	No. of Vehicles in Class	Description.	Capacity.		Average Tare.			
			Pass'grs	T.	C.	Q.	Lb.	
(Vict.)		<b>PASSENGER ROLLING STOCK (BOGIE)—</b> (continued).						
BE	36	9 compartments .. ..	72	38	10	0	0	
ABE	16	8 compartments .. ..	25 1st 33 2nd	35	11	0	0	
BDSE	7	5 compartments and Mail Sorter ..	41 5 tons	34	4	1	0	
AW	40	6 compartments, 58-ft. body ..	Pass'grs 40	27	12	0	0	
BW	44	7 compartments, 58-ft. body ..	60	27	14	3	0	
ABW	52	6 compartments .. ..	19 1st 25 2nd	31	4	3	0	
AW	5	7 compartments, 64-ft. body ..	60	32	10	3	0	
BW	5	8 compartments, 64-ft. body ..	68	32	9	3	0	
ABW	5	7 compartments—3 firsts, 4 second ..	26 1st 34 2nd	33	5	3	0	
B	30	9 compartments (Country) ..	90	24	8	1	0	
B	14	9 compartments (extended) ..	90	24	1	2	0	
AB	3	American Saloon .. ..	20 1st 36 2nd	17	2	1	0	
AB	9	" " .. ..	28 1st 36 2nd	16	16	0	0	
ABC	5	American Saloon, with Van ..	20 1st 32 2nd	16	11	0	0	
ABC	2	4½ compartments, with Van ..	15 1st 30 2nd	20	14	0	0	
ABC	1	4 compartments, with Van ..	32 2nd 20 1st	19	14	0	0	
ABC	2	5 compartments .. ..	24 1st 20 2nd	20	0	0	0	
B	1	American Saloon .. ..	52	17	4	1	0	
B	1	American Saloon .. ..	64	17	10	0	0	
B	1	2 Saloons .. ..	52	17	16	2	0	
B	2	4 compartments and saloon ..	66	18	17	2	0	
AC	18	7 compartments (Swing) ..	70	24	17	1	0	
12 BL	1	Late Pioneer, 8 compartments ..	64	34	17	2	0	
13 BL	1	" " 9 " .. ..	72	34	9	0	0	
AV	33	6 compartments .. ..	32	23	0	0	0	
AV	2	2 compartments, 2 saloons ..	30	24	5	2	0	
BV	25	7 compartments .. ..	50	24	17	0	0	
ABL	50	7 compartments, 2nd class Saloon ..	32 2nd 16 1st	23	14	2	0	
ABL	8	7 compartments, 1st class Saloon ..	18 1st 28 2nd	23	15	0	0	
AB	2	6 compartments .. ..	28 1st 28 2nd	22	8	1	0	
AB	19	8 compartments (Country) ..	24 1st 50 2nd	23	10	0	0	
AB	6	7 compartments (Mallee) ..	18 1st 30 2nd	20	3	3	0	
AB	2	6 compartments, Late V. & S.A. ..	52	17	12	1	0	
BL	11	6 compartments, Late V. & S.A. ..	54	17	12	1	0	
APL	7	9 compartments .. ..	44	20	0	3	0	
BPL	65	9 compartments, 59ft. 9in. long ..	82	25	0	3	0	
APL	9	9 compartments, 58ft. 0½in. long ..	78	25	11	0	0	
BPL	20	9 compartments, 58ft. 0½in. long ..	78	25	11	0	0	
APL	38	9 compartments, 58ft. 6½in. long ..	82	25	11	0	0	

## ROLLING STOCK.—PASSENGER.

Class and Distinguishing Letter.	No. of Vehicles in Class	Description.	Capacity.	Average Tare.				
<b>PASSENGER ROLLING STOCK (BOGIE)—</b>								
(continued).								
			Pass'grs	T.	C.	Q.	Lb.	
A	34	8 compartments (Country) .. .. .	80	24	12	0	0	
A	17	9 compartments " .. .. .	90	24	14	0	0	
AB	6	9 compartments " .. .. .	40 1st	24	4	0	0	
			50 2nd					
AB	1	9 compartments " .. .. .	50 1st	24	16	0	0	
			40 2nd					
AB	4	9 compartments " .. .. .	30 1st	24	6	0	0	
			60 2nd					
<b>ROLLING STOCK FOR ELECTRIC TRAINS.</b>								
M	90	7 compartments (Swing) .. .. .	80	46	16	0	0	
M	46	8 compartments " .. .. .	80	46	16	0	0	
ABM	1	8 compartments " .. .. .	40 1st	46	16	0	0	
			40 2nd					
M	2	8 compartments " .. .. .	40 1st	46	16	0	0	
			40 2nd					
D	16	7 compartments " .. .. .	70	26	10	0	0	
D	16	8 compartments " .. .. .	80	26	10	0	0	
T	112	9 compartments " .. .. .	90	25	10	0	0	
M	241	8 compartments (Sliding) .. .. .	84	47	16	0	0	
D	20	8 compartments " .. .. .	84	27	10	0	0	
T	212	9 compartments " .. .. .	94	26	10	0	0	
G	97	9 compartments " .. .. .	94	26	10	0	0	
ACM	5	7 compartments .. .. .	70	46	16	0	0	
CM	5	Parcels Coach .. .. .	10 tons	31	12	0	0	
<b>NARROW GAUGE.</b>			70					
NBC	7	1 compartment and van .. .. .	4 tons	6	15	0	0	
NBH	15	Excursion Cars .. .. .	Pass'grs	5	0	0	0	
NB	4	6 compartments and lavatory .. .. .	32	8	11	0	0	
NB	17	5 compartments .. .. .	40	8	6	1	0	
NB	6	Saloon and Lavatory .. .. .	24	6	8	3	0	
<b>FIXED WHEEL BASE.</b>								
X	37	4 compartments, 6 wheel .. .. .	40	12	0	0	0	
X	37	5 compartments, 6 wheel .. .. .	50	12	5	0	0	
X	1	4 compartments and lavatory, 6 wheel .. .. .	30	13	9	0	0	
XY	31	5 compartments .. .. .	50	12	10	2	0	
XY	1	2 saloons .. .. .	36	11	6	0	0	
XYZ	16	2 compartments and Brake compartment (6 wheel) .. .. .	25	11	3	2	0	
XYZ	2	2 compartment and Brake compartment (end doors) .. .. .	14	11	4	4	0	
XYZ	1	3 compartments and Brake compartment .. .. .	30	11	9	0	14	
YZ	15	3 compartments and Brake compartment .. .. .	30	12	2	0	0	
YZ	25	1. Saloon and Brake compartment .. .. .	24	10	2	2	0	
YZ	2	2 Saloon and Brake compartment .. .. .	24	9	4	2	6	
YZ	1	Fitted with Double Plough .. .. .						
Y & YH	155	Various types .. .. .						

## ROLLING STOCK.—PASSENGER.

Class and Distinguishing Letter.	No. of Vehicles in Class.	Description.	Capacity.	Average Tare.			
				T.	C.	Q.	Lb.
VAN AND SUNDRY STOCK (BOGIE).							
V. & S.A. Jt. Stock				T.	C.	Q.	Lb.
CE	6	Fitted with Fish compartment	12 tons	33	15	0	0
V. & S.A. Jt. Stock							
D	2	Late Mail Sorting Van ..	15 tons	31	2	0	0
CE	31		12 tons	34	6	0	0
D	1	Mail Baggage Van .. ..	20 tons	27	6	1	0
CW	15		16 tons	25	2	3	0
C	2	Sanitary Accommodation ..	..	18	10	2	0
CV	2	Express Van .. ..	10 tons	24	7	1	0
CV	5	Express Van, Fish compartment	10 tons	24	15	0	0
C	1	45ft. van .. ..	8 tons	17	16	0	0
C	30	Sanitary Accommodation, 40ft. body	8 tons	18	18	3	0
C	12	Carrying fish, 40ft. body ..	8 tons	17	16	0	0
C	1	39ft. 6in. body .. ..	8 tons	16	15	0	0
C	2	32ft 1in. body .. ..	8 tons	15	1	1	0
FF	4	Horse Boxes .. ..	12 horses	19	19	0	0
WW	4	35ft. body .. ..	..	14	7	0	0
NARROW GAUGE.							
NC	6	Brake Van .. ..	4 tons	6	11	2	0
FIXED WHEEL BASE.							
Hospital Dyna- graph	2	30ft. body, 6ft. wheel ..	..	12	14	2	0
J	4	4 wheels .. ..	..	8	17	0	0
Z	100	Hearse car .. ..	20 coffins	12	15	1	0
Z	443	24ft. 2in. body .. ..	4 tons				
F	62	24ft. 2in. body .. ..	5 tons	11	5	0	0
W	79	Horse boxes .. ..	6 horses	12	0	0	0
W	146	25ft. 7in. bodies .. ..	..	7	16	0	0
W		Late Y's, YH's and X's ..	..				
ELECTRIC TRAM STOCK.							
	20	Combination 44ft. body ..	Pass'gers 52				
	9	Sliding door .. ..	50				
	7	Combination 30ft. body ..	40				

ROLLING STOCK.—GOODS.

Class and Distinquishing Letter.	No. of Vehicles in Class	Description of Truck.	Carrying Capacity.	Internal Measurements.					
				Tons.	Length. ft. in.	Width. ft. in.	Average Depth. ft. in.		
E	202	Gondola .. ..	40	42	11 <sup>3</sup> / <sub>8</sub>	4	6	4	6
G	16	Carriage Truck ..	10	18	0	7	5	1	6
"	1	" " (see page 199-201)	10	18	0	7	6	..	..
"	2	" " ..	15	25	7	7	5	1	6
H	1	High-sided, covered ..	7	17	0	7	7	6	7 <sup>1</sup> / <sub>2</sub>
"	5	" " ..	10	17	0	7	7	6	7 <sup>1</sup> / <sub>2</sub>
"	1	" " ..	10	16	10	7	7	6	8
"	2	" " ..	8	17	5	7	4 <sup>1</sup> / <sub>2</sub>	7	0
"	71	" " ..	10	17	5	7	4 <sup>1</sup> / <sub>2</sub>	7	0
"	1	" " ..	8	17	5	7	3 <sup>1</sup> / <sub>2</sub>	7	0
"	9	" " ..	10	17	5	7	3 <sup>1</sup> / <sub>2</sub>	7	0
BH	2	" " ..	30	35	9 <sup>5</sup> / <sub>8</sub>	8	6 <sup>1</sup> / <sub>2</sub>	8	1 <sup>1</sup> / <sub>2</sub>
I	17	Medium, Iron (old) ..	8	17	5 <sup>1</sup> / <sub>2</sub>	7	7	2	10
"	1	" " ..	10	17	5 <sup>1</sup> / <sub>2</sub>	7	7	2	10
"	1	" " ..	8	17	11 <sup>3</sup> / <sub>8</sub>	7	6 <sup>1</sup> / <sub>2</sub>	3	0
"	973	" " ..	10	17	11 <sup>3</sup> / <sub>8</sub>	7	6 <sup>1</sup> / <sub>2</sub>	3	0
"	806	" " high sided ..	16	17	11 <sup>3</sup> / <sub>8</sub>	8	6	4	6
"	7059	" " latest pattern ..	16	22	0	8	6	3	8
"	200	" " with wood sides and ends ..	16	21	8 <sup>3</sup> / <sub>8</sub>	8	6 <sup>1</sup> / <sub>2</sub>	3	9 <sup>1</sup> / <sub>2</sub>
Ig	101	" " falling door ..	12	17	11 <sup>3</sup> / <sub>8</sub>	7	6 <sup>1</sup> / <sub>2</sub>	3	0
"	52	" " " " ..	16	22	0	9	2 <sup>3</sup> / <sub>4</sub>	3	5
"	50	" " " " ..	16	22	0	8	9 <sup>3</sup> / <sub>4</sub>	3	6 <sup>1</sup> / <sub>2</sub>
"	1	" " " " ..	16	20	0	9	3	3	4
"	1	" " " " ..	16	21	0	8	6	3	10
I	1	Wood, old, falling door ..	8	14	8 <sup>1</sup> / <sub>2</sub>	7	8 <sup>1</sup> / <sub>2</sub>	2	7 <sup>1</sup> / <sub>2</sub>
"	3	" " " " ..	10	14	8 <sup>1</sup> / <sub>2</sub>	7	8 <sup>1</sup> / <sub>2</sub>	2	7 <sup>1</sup> / <sub>2</sub>
"	7705	" " old standard ..	10	17	7 <sup>1</sup> / <sub>2</sub>	7	6 <sup>1</sup> / <sub>2</sub>	3	0
"	47	" " " " ..	8	17	7 <sup>1</sup> / <sub>2</sub>	7	6 <sup>1</sup> / <sub>2</sub>	3	0
"	2380	" " " " ..	10	17	7 <sup>1</sup> / <sub>2</sub>	7	6 <sup>1</sup> / <sub>2</sub>	3	0
"	350	Medium ..	20	22	0	8	6	3	8
Ix	30	Fitted with tanks to carry water ..	1200	..	..	..	..	..	..
"	1	" " for weed destroying ..	1200	..	..	..	..	..	..
J	12	Hopper Trucks ..	40	30	0	8	10 <sup>1</sup> / <sub>2</sub>	4	4
"	35	Oil Tanks ..	4550 to 4700	..	..	..	..	..	..
"	31	Bogie Oil Tanks ..	8100 to 9000	..	..	..	..	..	..
K	*15	Low-sided ..	8	15	7	7	7	0	5 <sup>1</sup> / <sub>2</sub>
"	*25	" 1 with swing bolster ..	10	15	7	7	7	0	5 <sup>1</sup> / <sub>2</sub>
"	2	" " " " ..	7	14	7 <sup>1</sup> / <sub>2</sub>	7	7 <sup>1</sup> / <sub>2</sub>	0	5 <sup>1</sup> / <sub>2</sub>
"	7	" " " " ..	8	14	7 <sup>1</sup> / <sub>2</sub>	7	7 <sup>1</sup> / <sub>2</sub>	0	5 <sup>1</sup> / <sub>2</sub>
"	38	" 18 with swing bolsters ..	10	14	7 <sup>1</sup> / <sub>2</sub>	7	7 <sup>1</sup> / <sub>2</sub>	0	5 <sup>1</sup> / <sub>2</sub>
"	†7	" 2 " " " " ..	10	17	7 <sup>1</sup> / <sub>2</sub>	7	6 <sup>1</sup> / <sub>2</sub>	0	5 <sup>1</sup> / <sub>2</sub>
"	†1	" 1 " " " " ..	12	17	7 <sup>1</sup> / <sub>2</sub>	7	6 <sup>1</sup> / <sub>2</sub>	0	5 <sup>1</sup> / <sub>2</sub>
"	3	" " " " ..	8	14	6 <sup>1</sup> / <sub>2</sub>	7	5	0	5
"	3	" 1 with swing bolster ..	10	14	6 <sup>1</sup> / <sub>2</sub>	7	5	0	5
"	2	" " " " ..	8	14	7	7	8	0	5
"	4	" 4 with swing bolsters ..	10	14	7	7	8	0	5
"	14	Portable Cranes ..	16	16	1	8	0	..	..
(31 of the K class are fitted with tanks to carry water, 5 for weed destroying and 1 for oil fuel)									
LL	50	Bogie Sheep Trucks ..	200	36	0	8	5 <sup>1</sup> / <sub>2</sub>	..	..
L	1223	Sheep Trucks, standard (iron) ..	100	20	0	7	8 <sup>1</sup> / <sub>2</sub>	..	..
M	5	Cattle Trucks ..	8	19	4	7	4	6	10
"	95	" " " " ..	10	19	4	7	4	6	10
"	4	" " " " ..	8	17	9 <sup>3</sup> / <sub>8</sub>	7	11	7	0
"	15	" " " " ..	10	17	9 <sup>3</sup> / <sub>8</sub>	7	11	7	0

\*13 of these trucks are fitted for the carriage of oil.

†2 of these trucks are fitted for the carriage of oil.



ROLLING STOCK.—GOODS.

Class and Distinguishing Letter.	No. of Vehicles in Class	Description of Truck.	Carrying Capacity.	Internal Measurements.					
				Length.		Width.		Average Depth.	
			Tons	ft.	in.	ft.	in.	ft.	in.
M	14	Cattle Trucks .. ..	8	17	6	7	4	6	4 $\frac{1}{2}$
"	193	" " .. ..	10	17	6	7	4	6	4 $\frac{1}{2}$
"	1	" " .. ..	8	17	6 $\frac{1}{2}$	7	4 $\frac{1}{2}$	6	11
"	35	" " .. ..	10	17	6 $\frac{1}{2}$	7	4 $\frac{1}{2}$	6	11
"	353	" " (iron) .. ..	10	17	9 $\frac{1}{2}$	7	11	7	0
N	3	Ballast Trucks .. ..	10	14	9	7	10	1	3
"	2	" " .. ..	10	14	9	7	9 $\frac{1}{2}$	1	3
"	8	" " .. ..	8	15	8	7	7	1	3
"	14	" " .. ..	10	15	8	7	7	1	3
(3 of the N and NB Class are fitted with tanks to carry water)									
NN	41	Ballast Hopper Truck (iron)	30	17	8	8	5	4	6
O	148	Coal Hopper Truck (iron)	10	14	3	5	11	4	6
O	184	" " (steel)	15	14	6	6	5	6	3
OO	6	Breakdown Vans .. ..	40	48	0	8	5	7	0
Powder Vans	5	Iron .. ..	5	16	4 $\frac{1}{2}$	7	1 $\frac{1}{2}$	6	4 $\frac{1}{2}$
"	6	Wood .. ..	5	17	0	7	7	7	0
"	13	" " .. ..	5	15	3	7	3	5	4 $\frac{1}{2}$
Q	1	Low-sided Bogie .. ..	16	35	7	8	5	0	6
"	9	" " .. ..	20	35	7	8	5		
"	1	" " .. ..	26	35	7	8	5		
"	91	Bogie (movable bolsters)	30	50	0	9	0		
"	4	Pintsch Gas Holders .. ..	..	35	7	8	9 $\frac{1}{2}$		
"	1	Steam Shovel Repair Truck	..	44	1	8	7		
QB	11	Boiler Trucks (steel)	30 tons distributed. 14 tons central	52	0	9	0		
QR	406	Bogie Open Medium Trucks (wood)	26	34	8 $\frac{1}{2}$	8	0 $\frac{1}{2}$	2	11
QN	121	Ballast Hopper Trucks (steel)	26	33	0	8	5	1	8
R	11	Bogie Open Medium Truck (wood)	20	33	7 $\frac{1}{2}$	7	11	2	6
S	2	Flat .. ..	40	43	0	8	11		
T	191	Refrigerator, 4 wheels .. ..	12	17	3 $\frac{1}{2}$	8	1 $\frac{1}{2}$	7	10
"	226	" " 6 " .. ..	15	24	8 $\frac{1}{2}$	8	1 $\frac{1}{2}$	7	10
TH	1	" " 4 " .. ..	10	16	10	7	6	6	4 $\frac{1}{2}$
TT	25	" (Bogie) .. ..	26	34	4	7	8	6	7 $\frac{1}{2}$
"	6	Breakdown Vans (Bogie) .. ..	16	34	4	7	8	6	7 $\frac{1}{2}$
U	112	Double Louvres (wood), 4 wheels	11	17	3	7	9	7	0
"	167	Single Louvre " 4 " .. ..	11	17	4	7	8	7	9
"	281	" " (steel) 4 " .. ..	11	17	5	7	7 $\frac{1}{2}$	7	9 $\frac{1}{2}$
"	506	" " " 6 " .. ..	15	25	0	8	0	7	9 $\frac{1}{2}$
V	52	Louvre " .. ..	30	35	10	8	6 $\frac{1}{2}$	7	8
Water Trucks	8		Gallons 2000	17	6 $\frac{3}{4}$	6	9 $\frac{1}{2}$	3	0
"	156		Gallons 2000	18	0	6	7 $\frac{1}{2}$	2	10 $\frac{1}{2}$
"	9	Old Tenders .. ..	Average 2260						
—	3	Oil Tank Trucks .. ..	Gallons 3210						
—	1	" " " .. ..	Gallons 3300						
—	7	Weighbridge Testing Tenders	.. ..						
—	3	Liquid Fuel Truck (old Tenders)	Average 2210						
NARROW GAUGE TRUCKS.			Tons						
NH	1	Bogie covered .. ..	10	24	7 $\frac{1}{2}$	5	8 $\frac{1}{2}$	5	10
NMM	15	" cattle trucks .. ..	10	24	9 $\frac{1}{2}$	5	9 $\frac{1}{2}$	6	11 $\frac{1}{2}$
NQR	212	" open medium trucks .. ..	10	24	11 $\frac{1}{2}$	6	0	1	9
NTr	1	" insulated .. ..	10	24	3 $\frac{1}{2}$	5	4 $\frac{1}{2}$	5	9
NUu	14	" louvred .. ..	10	24	6 $\frac{1}{2}$	5	7 $\frac{1}{2}$	6	1 $\frac{1}{2}$

## Names and Addresses of Officers.

### TRANSPORTATION BRANCH.

Name.	Title.	Private Address.
M. J. CANNY .. ..	General Superintendent of Transportation	3 Derrit-avenue, Malvern, Tel. N2824
W. THOMAS .. ..	Assistant General Superintendent	"Canterbury," Power-avenue, Malvern. Telephone U3890
J. CONLAN .. ..	Outdoor Superintendent ..	"Summer Hill," 151 Grey-street, East Melbourne. Telephone J3394
H. W. CLARK .. ..	Superintendent of Goods Train Service	Payne-street, Surrey Hills. Tel. Cant. 2638

### GOODS AND PASSENGER BUSINESS.

Name.	Title.	Private Address.
W. E. KEAST ...	General Passenger and Freight Agent	Foam-street, Elwood. Telephone, 2384 Brighton

### TRANSPORTATION BRANCH OFFICERS AND DISTRICTS OF DISTRICT OFFICERS.

Name and Title.	Addresses, Official and Private.	Districts, Showing Terminal Stations.
Southam, J., Claims Agent	Railway Offices, Spencer-street "Moama," 40 Wattletree-road, Armadale. Telephone U2298	
Fitzpatrick, B., Live Stock Agent	Railway Offices, Spencer-street "Laluma," 26 Milton-street, St. Kilda. Telephone Windsor 3075	
R. McClelland, Staff Officer	1 Sydney-street, Armadale. Wind. 7505	
Cooke, H., Chief Timetables Officer	150 Cochrane-street, Elsternwick. Tel. X3322	
T. W. J. Cox, Metropolitan Supt.	Flinders-street .. Grandview-grove, Armadale. Wind, 1512	Flinders-street to Port Melbourne Flinders-street to St. Kilda St. Kilda to Brighton Electric Street Railway

## NAMES AND ADDRESSES OF OFFICERS.

Name and Title.	Addresses. Official and Private.	Districts. Showing Terminal Stations.
<p>T. Sullivan, Assistant to Metropolitan Superin- tendent</p>	<p>Flinders-street .. 86 Nimmo-street, Middle Park. Wind. 7703.</p>	<p>Flinders-street to Sandringham Sandringham to Black Rock Electric Street Railway Prince's Bridge to Hurstbridge McLeod to Mont Park Richmond to Healesville Burnley to Darling Hawthorn to Kew Camberwell to Ashburton and Deepdene Ringwood to Gembrook Lilydale to Warburton South Yarra to Noble Park, and to Down Distant Signal, Dandenong Spring Vale to Spring Vale Ceme- tery Caulfield to Stony Point Crib Point to Naval Base Bittern to Red Hill Mornington Junc. to Mornington Flinders-street to Williamstown Pier Station Spotswood to Power House Yard South Newport to Williamstown Racecourse and Altona Beach Newport to Werribee, and to Down Distant Signal, Manor Footscray to St. Albans, and to Down Distant Signal, Syden- ham Newport to Sunshine, Sunshine to Federal Manure Siding, and to <math>\frac{1}{2}</math> mile post at <math>10\frac{1}{2}</math> miles, Up side of Deer Park North Melbourne to Somerton, and to Down Distant Signal. Craigieburn Newmarket to Flemington Race- course North Melbourne to Fawkner Royal Park to Whittlesea North Fitzroy to Fitzroy North Fitzroy to Clifton Hill</p>
<p>A. G. Fletcher, District Superintendent G. Rogers, Assistant District Superintendent</p>	<p>Geelong Station .. Sydney Hotel, Murphy- street. Tel. Geelong 1505</p>	<p>Manor to Port Fairy North Geelong to Maroona North Geelong to Fyansford South Geelong to Queenscliff Moriac to Wensleydale Birregurra to Forrest Irrewarra to Cressy Colac to Crowes Colac to Alvie Timboon Junction to Timboon Terang to Mortlake Koroit to Hamilton Maroona to Portland Hamilton to Coleraine Branxholme to Casterton Heywood to Mount Gambier</p>
<p>South-Western District</p>		

## NAMES AND ADDRESSES OF OFFICERS.

Name and Title.	Addresses. Official and Private.	Districts, Showing Terminal Stations.
W. Tredinnick, District Superintendent  Midland District	Bendigo .. ..  Railway Reserve, Bendigo. Tel. Bendigo 222 ..	Up Distant Signal at Castlemaine to Echuca Echuca to Deniliquin and Bal- ranald Elmore to Cohuna Bendigo to Leslie, and to Up Dis- tant Signal, Heathcote Junction Bendigo to Kulwin Eaglehawk to Yungera Kerang to Murrabit Wedderburn Junction to Wedder- burn Korong Vale to Robinvale
J. G. Lee, District Superintendent  Eastern and South- Eastern District	Dandenong Station .. cr. Glen Iris and Toorak roads, South Camber- well, Tel. Cant. 1722	Dandenong to Orbost Dandenong to Port Albert Nyora to Wonthaggi Korumburra to Outtrim Welshpool to Welshpool Jetty Alberton to Woodside Warragul to Noojee Moe to Walhalla Moe to Thorpdale Morwell to North Mirboo Traralgon to Stratford Junction Maffra to Briagolong
A. J. Morris, District Superintendent  North Eastern District	Seymour .. ..  Terminus Hotel, Seymour	Craigieburn to Wodonga Tallarook to Mansfield Cathkin to Alexandra Mangalore to Cobram Murchison East to Colbinabbin Rushworth to Girgarre Toolamba to Echuca Racecourse, and to Down Distant Signal, Echuca Shepparton to Katamatite Numurkah to Picola Strathmerton to Tocumwal Benalla to Yarrawonga Benalla to Tatong Wangaratta to Whitfield Bowser to Yackandandah Everton to Bright Springhurst to Wahgunyah Wodonga to Cudgewa
T. R. L. Sexton, Melb. Goods Superintendent	Spencer-street ..  263 High-street, Malvern. Telephone U4944	In charge of Melbourne Goods Sheds, and Goods Business at Victoria Dock, Arden-street, South Kensington, Port Mel- bourne Piers Williamstown Pier and Graham
M. A. Remfrey, District Superintendent	Care General Superinten- dent (Room 9)	Relieving
T. Maddern, District Superintendent  Western District	Ballarat .. ..  807 Armstrong-street, N. Ballarat. Tel. Ballarat 1562 ..	Deer Park to Serviceton Warrenheip to Bannockburn and to Up Distant Signal, Ghering- hap Ballarat East to Buninyong

## NAMES AND ADDRESSES OF OFFICERS.

Name and Title.	Addresses. Official and Private.	Districts. Showing Terminal Stations.
Western District— (continued)		Ballarat to Woodburn and to Down Distant Signal from Ballarat line at Daylesford (embracing Up Distant Signal from the Mary- borough line at North Creswick) Waubra Junction to Waubra Linton Junction to Werneth and to Up Distant Signal, Cressy Newtown to Skipton Ararat to Langi Logan and to Down Distant Signal, Maroona Ararat to Navarre, including that portion of Maryborough line from Ben Nevis Down Home Signal to the station Stawell to Grampians Lubeck to Bolangum Murtoa to Patchewollock Horsham to Carpolac East Natimuk to Kanawalla and to the Up Home Signal at Hamilton off Balmoral line Dimboola to Yaapeet Jeparit to Yanac
H. Russell, District Superintendent. North Western District	Maryborough .. "Desmond Dene," Park- road, Maryborough. Tel. Maryborough 190.	Sydenham to Yelta Clarkefield to Lancefield Carlsruhe to Daylesford Redesdale Junction to Redesdale Castlemaine to Shelbourne Maryborough to Eversley and to Down Home Signal at Ben Nevis Dunolly to Bullabul and to Down Distant Signal, Inglewood Ouyen to Pinnaroo Redcliffs to Meringur
A. W. F. Smith, Superin- tendent of Melbourne Yards	Spencer-street Corner Grange and Glen- huntly roads, Caulfield. Telephone U5992	In charge of Spencer-street, Flin- ders-street, Prince's Bridge and Jolimont Yards and all Signal- boxes, from Jolimont Junction to Kensington and South Ken- sington inclusive

In the unavoidable absence of the Metropolitan Superintendent, Assistant to the Metropolitan Superintendent, or District Superintendent, the Station-masters (but not the Assistant Station-masters) at the following Stations are authorised to act under the Rules and Regulations in regard to any emergency in the District for which their Station is a Depot, viz.:—Spencer-street, Flinders-street, Geelong, Ballarat, Ararat, Stawell, Hamilton, Maryborough, Woodend, Castlemaine, Ouyen, Bendigo, Echuca, Seymour, Benalla, Wangaratta, Wodonga, Dandenong, Warragul, and Korumburra.

\* In the absence of the Station-master, Seymour, Mr. Neal (Chief Clerk, District Superintendent's office) is authorised to act for the North-Eastern District.

## NAMES AND ADDRESSES OF OFFICERS.

### TRAIN RUNNING OFFICERS.

Name.	Address.	District, &c.
Price, W. ..	C/o Metropolitan Superintendent .. Railway Hotel, West Melbourne. F1773	Metropolitan District
Game, A. H. ..	C/o District Superintendent, Ballarat 10 Doveton-cres., Ballarat	Western District
Roscholler, J. T. ..	C/o District Superintendent, Mary- borough Railway-crescent, Maryborough	North-Western District
Abberton, J. ..	C/o District Superintendent, Bendigo C/o Hopetoun Hotel, cr. Mitchell and Wills-streets, Bendigo. Tel. Bendigo 371	Midland District
Proctor, E. W. ..	C/o District Superintendent, Dandenong 22 Inverness-avenue, Malvern. Tel. U6204	Eastern and South-Eastern District

### INSPECTORS.

Name.	Address.	District, &c.
Johnson, G. ..	Spencer-street, Station .. .. 27 Wakefield-street, Glenferrie	Chief Ticket Inspector
Buck, R. J., Traffic Inspector	C/o Metropolitan Superintendent .. 7 Margaret-street, Canterbury (called by S.M., Canterbury)	} Metropolitan District
Buckley, D. J., Traffic Inspector	C/o Metropolitan Superintendent .. Astolote-avenue, Murrumbena. Tel. Oak. 176	
Giles, A. T., Traffic Inspector	C/o Metropolitan Superintendent .. 146 Point Nepean-road, Gardenvale (called by S.M., Gardenvale)	
Mulcahy, T. R. ..	210 Bellair-street, Kensington (called by S.M., Kensington)	
Rogers, W., Traffic Inspector	C/o District Superintendent, Geelong Wilson-street, Geelong East	South-Western District
O'Haire, J. S., Traf- fic Inspector	C/o District Superintendent, Ballarat 329 Armstrong-street, Ballarat	Western District
Neumann, C. W. W., Traffic Inspector	C/o District Superintendent, Mary- borough "Chaskit," Argyle-street, Mary- borough	North-Western District
McLean, A. L., Phil- lips, R. S., Traffic Inspectors	C/o District Superintendent, Bendigo	Midland District
Baldock, C. J., Traffic Inspector	C/o District Superintendent, Seymour Seymour	North-Eastern District
Lalor, M., Traffic Inspector	C/o District Superintendent, Dandenong Langhorne-street, Dandenong	Eastern and South-Eastern District

**NAMES AND ADDRESSES OF OFFICERS.**

**BLOCK AND SIGNAL INSPECTORS.**

Name.	District Head-quarters and Private Address.	If required at night, Communication to be sent—
A. E. Colson ..	Metropolitan District (in charge), Flinders-street ; 21 McLachlan-street, Northcote	S.M., Northcote
Murfitt, A. W. ..	Metropolitan District, 49 Kneenstreet, North Fitzroy	S.M., North Fitzroy, or Loop Junction Signal-box, North Fitzroy
Beddoe, D. ..	Metropolitan District, 21 Alexandra-avenue, Elsternwick	S.M., Elsternwick
Anderson, E. ..	Metropolitan District, 8 Allardstreet, West Brunswick	S.M., Brunswick
Mullins, J. Z. ..	Metropolitan District, "Beaufort," 17 Lysterville-avenue, Malvern	S.M., Malvern
Nolan, J. T. ..	Flinders-street (Relieving), 227 Scotchmer-street, North Fitzroy	S.M., North Fitzroy
Saunders, C. H. ..	North-Western District, Maryborough	D.S., Maryborough
McIntyre, C. A. ..	Midland District, Bendigo ..	D.S., Bendigo
Burns, A. ..	North-Eastern District, Seymour	D.S., Seymour
Evans, J. ..	Eastern, South-Eastern District, Dandenong	D.S., Dandenong
Pearson, W. J. ..	Western District .. ..	D.S., Ballarat
Hoare, E. M. ..	South-Western District, Geelong	D.S., Geelong

The office of the Block and Signal Inspectors for the Metropolitan District is at Flinders-street, and is open from 6 a.m. to 12 midnight on week days throughout the year. The Districts for Block and Signal Inspectors are the same as those of the District Superintendent in each case, with the addition to the Metropolitan District of the locations under the supervision of the Melbourne Goods Superintendent and Superintendent of Melbourne Yards.

**EXAMINING OFFICERS.**

Name.	District Head-quarters and Private Address.
Stevens, L. L. ..	Care of General Superintendent, Room 9 ; " St. Lawrence," 220 Pascoe Vale-road, Essendon
Watkins, J. A. ..	Care of General Superintendent, Room 9 Rutland-road, Box Hill
Kavanagh, E. J. ..	Care of General Superintendent, Room 9 ; 17 Athol-street, Moonee Ponds

**NAMES AND ADDRESSES OF OFFICERS.**

**AMBULANCE OFFICER.**

Name.	Private Address.
F. W. Kaiser ...	42 Narong-road, Caulfield. Telephone U2687.

**SAFE WORKING OFFICER.**

Name.	Private Address.
Thos. Edwards ...	6 Coolangatta-road, Middle Camberwell (nearest station—Riversdale). Telephone W.2209.

**LADIES' WAITING ROOMS.**

Inspectress.	Official Address.
Miss M. A. Gorman ...	Room 27, Flinders-street Station.

(Rolling Stock Branch Names and Addresses, etc., commence next page).



## Rolling Stock Branch.

Name.	Title.	Private Address.
A. E. Smith	.. Chief Mechanical Engineer	.. 201 St. Kilda-street, Middle Brighton. Tel.: X4288
N. C. Harris	.. Asst. Chief Mechanical Engineer	.. 13 Park-street, Brighton. Tel.: X 2030
E. W. Arthur	.. Workshops Manager, Newport	.. Champion-street, Newport. Tel.: Wmstn. 445
A. R. Stamp	.. Supt. of Loco. Running	.. 23 Clarinda-street, Caulfield. Tel.: X 3433
E. Dillon	.. Supt. of Loco. Supplies	.. Empress-road, East St. Kilda. Tel.: Windsor 3856
W. A. Ryan	.. Chief Clerk .. ..	.. "Mt. Carmel," 31 Flower-street, Essendon. Tel.: Ascot 1109

### DISTRICT ROLLING STOCK SUPERINTENDENTS.

Name.	Addresses. (Official & Private.)	District, etc.
W. H. Deasey (Metropolitan)	Room 10, Flinders-street, Railway Buildings, 33 Victoria-street, Elsterwick (Tel.: X 3753)	All Suburban Lines, Stony Point, Red Hill, Mornington, Healesville, Gembrook, Warburton, Whittlesea, and Hurstbridge Lines
H. Scorer	.. Seymour	.. Broadmeadows to Heathcote Junction, Heathcote Junction to Albury and all Branches, Mangalore to Tocumwal and all Branches, Toolamba to Echuca R.C.
J. McLeod	.. Bendigo	NOTE.—Broadmeadows is in Mr. Deasey's district. .. Sunshine to Deniliquin, Elmore to Cohuna, Yungera, Robinvale, Kulwin and Wedderburn Lines, Bendigo to Heathcote Junction, Redesdale Junction to Redesdale, Clarkefield to Lancefield, Balranald, and Stony Crossing Lines.
E. Hinds	.. Ballarat	.. Serviceton to Sunshine, Ballarat to Carlsruhe, Waubra, Buninyong, Skipton, Grampians, Bolangum, Goroke, Patchewollock, Yaapeet, Yanac, East Natimuk to Ballast Siding, Balmoral, Warrenheip to Gheringhap Lines
J. W. Garter	.. Dandenong	NOTE.—Sunshine is in Mr. Deasey's district. .. Dandenong to Orbost and all Branches, Dandenong to Woodside and all Branches.
E. Jackson	.. Geelong	.. Newport South Junction to Geelong, Geelong to Port Fairy, and all Branches, Ararat to Portland and all Branches, Hamilton to Balmoral, Maroona to Geelong, Cressy to Newtown, Geelong to Queenscliff.
J. Noonan	.. Maryborough	.. Castlemaine to Yelta, North Creswick to Maryborough, Ararat to Maryborough, Navarre, Shelbourne, Pinnaroo, Merringur, Dunolly to Inglewood Lines.

**NAMES AND ADDRESSES OF OFFICERS.**

**ASSISTANT WORKSHOPS MANAGER, BRAKE INSPECTOR,  
ELECTRIC RUNNING INSPECTOR, LOCOMOTIVE DEPOT  
FOREMEN, ETC.**

Name.	Title.	Addresses.	District, etc.
J. Taylor	.. Asst. Workshops Manager	Newport (Champion-street, Newport	
F. Boadle	.. Brake Inspector	Railway Offices, Spencer-street "Southgate," Warrick-street, Ascot Vale	
W. T. Cornish	.. Chief Foreman	.. North Melbourne, Manningham- street, West Parkville. Tel.: Cent. 2224	Melbourne to Werribee, Wood- end, Lancefield, Wallan, Bacchus Marsh, Whittlesea, Dandenong, Mornington, Red Hill, Stony Point, Healesville, Warburton, Gembrook, War- ragul
J. Bell	.. Depot Foreman	.. Traralgon	.. Warragul to Orbost, and all Branch Lines
D. Bell	.. Depot Foreman	.. Korumburra	.. Dandenong to Woodside and Outtrim and Strezlecki Lines
A. C. Banfield	.. Depot Foreman	.. State Mine	.. Nyora-Wonthaggi Line
J. K. Melvor	.. Depot Foreman	.. Seymour	.. Wallan to Euroa, Seymour to Tocumwal and Branches (including Toolamba to Echuca R.C.), Mansfield and Alexandra Lines
G. R. Critten	.. Depot Foreman	.. Benalla	.. Euroa to Wodonga and all Branches
W. Groves	.. Depot Foreman	.. Bendigo	.. Woodend to Deniliquin, Ben- digo to Wallan, Kyneton to Redesdale, Elmore to Cohuna, Yungera, Kulwin, Robinvale, Wedderburn, Bal- ranald, and Stony Crossing Lines
R. Dawson	.. Depot Foreman	.. Maryborough	.. Castlemaine to Yelta and Shelbourne, Maryborough to Avoca, Dunolly to Inglewood, Maryborough to North Cres- wick, Onyen to Pinnaroo, and Redcliffs to Merringur
R. White	.. Depot Foreman	.. Geelong	.. Werribee to Port Fairy and Branches (except Koroit to Hamilton and Cressy to Newtown), also Geelong to Meredith, Gheringhap to Cressy, Irrewarra to Cressy, and Cressy Depot
W. M. Ross	.. Depot Foreman	.. Ballarat	.. Meredith to Ballarat, Bacchus Marsh to Beaufort, Bunin- yong, Waubra, and Skipton Lines; also Creswick to Carlsruhe, and Newtown to Cressy

## NAMES AND ADDRESSES OF OFFICERS.

### ASSISTANT WORKSHOPS MANAGER, BRAKE INSPECTOR, ELECTRIC RUNNING INSPECTOR, LOCOMOTIVE DEPOT FOREMEN, ETC.—*continued.*

Name.	Title.	Addresses.	District, etc.
D. Stewart	.. Depot Foreman ..	Ararat	.. Beaufort to Armstrong, Ararat to Portland and Branch Lines, including Hamilton to Koroit and Maroona to Cressy, Ararat to Avoca, Ben Nevis to Navarre
G. T. Harries	.. Depot Foreman ..	Stawell	.. Armstrong to Serviceton and Branch Lines
J. Rist	.. Electric Running Inspector	Electric Running Depot, Jolimont	All electric services
R. Bahner	.. Assistant Electric Running Inspector		
E. Sanderson	.. Yard Foreman ..	Newport	.. In Charge of Yard and Steam Crane

### CARRIAGE AND WAGON REPAIRS, HOT BOXES, BROKEN DRAW-BARS, ETC.

Name.	Address. (Official & Private.)	District, etc.
W. Richardson	.. Railway Offices, Spencer-street 133 Booran-road, Glen Huntly Phone: U 8717.	Car and Wagon Inspector
W. J. Thornton	.. Car and Wagon Shops, North Melbourne "Viola," Weybridge - street, Surrey Hills	Chief Foreman, Car and Wagon Shops, North Melbourne
H. N. May	.. Jolimont Workshops Narrak-road, Balwyn Tel.: Cant. 1281	Workshops Manager
A. S. Deacon	.. Asst. Workshops Manager, Jolimont Workshops 6 Ailsa - avenue, East Malvern. Phone: U 3564	
H. Harrison	.. Jolimont Repair Shops 4 Carmichael-street, West Footscray	Foreman, Jolimont Repair Shops
D. McGregor	.. Ballarat North Workshops 8 Fraser-street, Ballarat	Workshops Manager
P. O'Neill	.. Bendigo North Workshops 407 Hargreaves-street, Bendigo, Tel.: Ben. 856	Workshops Manager
Depot Foreman	.. For district	All Stations in their Districts, as shown on pages 910-911

## NAMES AND ADDRESSES OF OFFICERS.

**\* EXAMINING OFFICER.**

Name.	Address.
W. Llewellyn ..	Railway Offices, Spencer-street 7 Carpenter-street, Brighton

\* See Instruction, pages 97-99.

(Way and Works Branch Names and Addresses, etc., commence next page.)

## Way and Works Branch.

Name.	Title.	Private Address.
E. H. BALLARD ..	Chief Engineer of Way and Works	"Maruna," 44 Wattle Tree-road, Malvern. Telephone: U 3676
J. M. ASHWORTH..	Assistant Chief Engineer of Way and Works	"Yarra Brae," Yarraview-street, Hawthorn. Telephone: 1030, Hawthorn
A. GOUDY ..	Engineer of Maintenance .	33 Foote - street, Elsternwick. Telephone: X 4389.
R. W. EASTERBY ..	Chief Clerk ..	"Tinniswood," 39 Finlayson-street, Malvern. Telephone: U 2247

### NAMES AND ADDRESSES OF OFFICERS.

Name.	Title.	Private Address.
P. R. LESLIE ..	Workshops Manager ..	6 Woolley - street, Essendon, Tel.: F 6983
C. H. FETHNEY ..	Metropolitan Engineer ..	29 Finlayson - street, Malvern. Tel.: U 1221
J. J. MONTGOMERY	Inspecting Engineer ..	65 Manningtree-road, Hawthorn. Tel.: Hawthorn 1701
W. WATSON ..	Inspector of Ironwork ..	13 Plant-street, Northcote South

### DISTRICT ENGINEERS.

Names and Addresses.	DISTRICTS SUPERVISED.	
	Works Foremen.	Road Foremen.
T. J. Bye, 30 Ardmillan-road, Moonee Ponds. Tel.: F 7429	Laurens - street, North Melbourne; Newport, Seymour, Wangaratta, Shepparton	Laurens - street, North Melbourne; Seymour No. 1, Seymour No. 2, Wangaratta, Shepparton
E. Richard, "Merioneth," Brewster-street, Essendon. Tel.: F6459	Flinders-street, Oakleigh No. 1, Oakleigh No. 2, Lilydale, Sale, Korumburra	Flinders-street, Oakleigh No. 1, Oakleigh No. 2, Korumburra, Sale
E. B. Slater, 63 Shannon-avenue, Newtown. Tel.: Geelong 2826	Geelong, Cressy, Warrnambool, Hamilton	Geelong, Cressy, Warrnambool, Hamilton No. 1, Hamilton No. 2
A. J. Ward, "Cunningyeuk," 522 Armstrong-street, North Ballarat. Tel.: Ballarat 1590	Ballarat, Ararat, Dimboola, Maryborough, Ouyen	Ballarat, Ararat, Dimboola, Murtoa, Maryborough, Ouyen
T. H. Coakley, "Clonmel," 190 Wattle-street, Bendigo. Tel.: Bendigo 488	Bendigo No. 1, Bendigo No. 2, Woodend, Korong Vale	Bendigo No. 1, Bendigo No. 2, Castlemaine, Korong Vale, Echuca

NAMES AND ADDRESSES OF OFFICERS.

**ROAD FOREMEN.**

HEADQUARTERS.	SECTION.
Laurens-street ..	Market-street (Flinders-street Viaduct) to 1 m. 07 c. between Flinders-street and Richmond; Flinders-street to 0 m. 29 c., St. Kilda and Fort Melbourne Lines; Princes Bridge to Jolimont (0 m. 43 c.); Market-street to North Melbourne; North Melbourne Junction to Somerton (12 m. 25 c.); North Melbourne Junction to Fawkner-Somerton; North Melbourne Junction to Williamstown Pier; Footscray Junction to 8 m. 20 c. near Albion, and to 7 m. 68 c. 301, towards Deer Park; Flemington Racecourse Line; Maribyrnong River Goods; Altona Beach Line; Newport to Sunshine; Newport to 22 m. 73 c. 24 l. near Manor; South Kensington to Melbourne City Abattoirs; Power House Line; Royal Park to 3 m. 40 c. North Carlton Line.
Seymour No. 1 ..	Somerton (12 m. 25 c.) to 59 m. 25 c., Goulburn Junction; Tallarook to Mansfield and Alexandra; Heathcote Junction to Tooborac (60 m. 20 c.).
Seymour No. 2 ..	Goulburn Junction (59 m. 25 c.) to Glenrowan (141 m. 60 c.); Mangalore to Wahring (88 m.); Benalla to Yarrawonga; Benalla to Tatong.
Wangaratta ..	Glenrowan (141 m. 60 c.) to the Murray; Wangaratta to Whitfield; Bowser to Beechworth and Yackandandah; Everton to Bright; Springhurst to Wahgunyah; Wodonga to Cudgewa.
Shepparton ..	Wahring (88 m.) to Cobram; Murchison East to Colbinabbia and Girgarre; Toolamba to 144 m. 40 c., near Echuca; Shepparton to Katamatite; Numurkah to Picola; Strathmerton to Tocumwal.
Flinders-street ..	Jolimont (0 m. 43 c.) to Hurstbridge; Flinders-street (0 m. 29 c.) to St. Kilda; Flinders-street (0 m. 29 c.) to Port Melbourne; Flinders-street (1 m. 07 c.) to Sandringham; South Yarra to Hawksburn (3 m. 67 c.); St. Kilda to Brighton, and Sandringham to Beaumaris Electric Street Railways; Royal Park (3 m. 40 c.) to Clifton Hill, including Northcote Loop and Fitzroy Lines; Macleod to Mont Park; Whittlesea Junction to Whittlesea; Fairfield Park - Deepdene - Ashburton - Oakleigh; Richmond to Canterbury (6 m. 70 c.); Hawthorn to Kew; Burnley to Waverley-road.
Oakleigh No. 1 ..	Hawksburn (3 m. 67 c.) to Dandenong (16 m. 60 c.); Canterbury (6 m. 70 c.) to Healesville; Ringwood to Upper Fern Tree Gully and Gembrook; Lilydale to Warburton; Caulfield to Stony Point and Mornington; Bittern to Red Hill; Spring Vale Cemetery Line.
Oakleigh No. 2 ..	Dandenong (16 m. 60 c.) to Morwell (87 m.); Dandenong to Monomeith (42 m.); Warragul to Noojee; Moe to Walhalla; Moe to Thorpdale; Morwell Brown Coal Mine Line; Koo-wee-Rup to Strezlecki.
Korumburra ..	Monomeith (42 m.) to Port Albert; Nyora to Wonthaggi; Korumburra to Outtrim and Coal Lines; Welshpool Jetty; Alberton to Woodside.

## NAMES AND ADDRESSES OF OFFICERS.

### ROAD FOREMEN (continued).

HEADQUARTERS.	SECTION.
Sale ..	Morwell (87 m.) to Orboast; Morwell to North Mirboo; Traralgon to Stratford; Maffra to Briagolong.
Geelong ..	Manor (22 m. 73 c. 24 l.) to Colac (93 m. 20 c.); North Geelong to Bannockburn (55 m. 10 c.); Gheringhap to 52 m. on Maroona Line; Fyansford Line; South Geelong to Queenscliff; Moriac to Wensleydale; Birregurra to Forrest.
Cressy ..	Gheringhap (52 m.) to Maroona (151 m. 53 c.); Irrewarra (92 m.) to Newtown (92 m. 70 c.), via Ballarat.
Warrnambool ..	Colac (93 m. 20 c.) to Port Fairy; Colac to Crowes; Colac to Alvie; Timboon Junction to Timboon; Terang to Mortlake Koroit to 175 m. 48 c., Hamilton Line.
Hamilton No. 1 ..	Ararat (132 m.) to Hamilton (198 m.); Maroona to 151 m. 53 c., Cressy Line; Hamilton to 273 m. 68 c. 38 l., East Natimuk; Coleraine Junction (200 m. 21 c.) to Coleraine.
Hamilton No. 2 ..	Hamilton (198 m.) to Portland; Coleraine Junction to 200 m. 21 c., Coleraine Line; Coleraine Junction to 175 m. 48 c., Koroit Line; Branxholme to Casterton; Heywood to South Australian Border (279 m. 70 c. 68 l.).
Ballarat ..	Sunshine (7 m. 68 c. 30 l.) to Linton Junction (76 m. 47 c.); Bannockburn (55 m. 10 c.) to Warrenheip; Bungaree Racecourse Line; Ballarat to Buninyong; Ballarat Cattle Yards; Ballarat to Maryborough (113 m. 40 c.); Waubra Junction to Waubra; North Creswick to Daylesford; and to 74 m. 72 c. (mileage via Carlsruhe); Linton Junction (76 m. 47 c.) to Skipton; Lal Lal Racecourse Line; Newtown to 92 m. 70 c., Cressy Line.
Ararat ..	Linton Junction (76 m. 47 c.) to Deep Lead (151 m.); Burrumbet Park Racecourse; Stawell to Grampians; Ararat to 132 m., Portland Line; Ararat to Maryborough (112 m. 14 c. 97 l.); Ben Nevis to Navarre.
Murtoa ..	Deep Lead (151 m.) to Horsham (202 m. 70 c.); Lubeck to Bolangum; Murtoa to Patchewollock.
Dimboola ..	Horsham (202 m. 70 c.) to Serviceton; Horsham to Carpolac; East Natimuk to 218 m. 12 c. via Horsham, 273 m. 68 c. 38 l. via Hamilton—on Balmoral Line; Dimboola to Yaapeet; Jeparit to Yanac.
Maryborough ..	Maldon Junction (79 m. 40 c.) to Woomelang (239 m. 20 c.); Maryborough to 112 m. 14 c. 97 l., Ararat Line; Maryborough to 113 m. 40 c., Ballarat Line; Dunolly to Inglewood (149 m. 70 c.).
Ouyen ..	Woomelang (239 m. 20 c.) to Mildura and Yelta; Ouyen to Finnaroo; Redcliffs to Merringar.

## NAMES AND ADDRESSES OF OFFICERS.

### ROAD FOREMEN (continued).

HEADQUARTERS.	SECTION.
Bendigo No. 1 ..	Harcourt (80 m. 60 c.) to Elmore (134 m. 55 c.); Bendigo to Tooborac (60 m. 20 c.); Bendigo to Wedderburn Junction (146 m. 40 c.); Wedderburn Junction to Wedderburn, and to 149m. 70 c., Dunolly Line; Elmore to Cobana.
Bendigo No. 2 ..	Myer (106 m. 55 c.) to Yungera; Kerang to Murrabit.
Echuca ..	Elmore (134 m. 55 c.) to Deniliquin; Moama to Balranald; Echuca to 144 m. 40 c., Toolamba Line.
Castlemaine ..	Albion (8 m. 20 c.) to Harcourt (80 m. 60 c.); Lancefield Junction to Lancefield; Carlsruhe to Daylesford (74 m. 72 c.); Redesdale Junction to Redesdale; Castlemaine to 79 m. 40 c., Maryborough Line; Maldon Junction to Shelbourne.
Korong Vale ..	Wedderburn Junction (146 m. 40 c.) to Kulwin and Robinvale.

### WORKS FOREMEN.

HEADQUARTERS.	SECTION.
Laurens-street ..	Market-street (Flinders-street Viaduct) to 1 m. 07 c., between Flinders-street and Richmond; Flinders-street to 0 m. 29 c., St. Kilda and Port Melbourne Lines; Princes Bridge to Jolimont (0 m. 43 c.); Royal Park to 3 m. 40 c. towards North Carlton; Market-street to North Melbourne; North Melbourne Junction to Somerton (12 m. 25 c.); North Melbourne to Fawnker-Somerton; North Melbourne to South Kensington (2 m. 8 c.); Flemington Racecourse Line.
Newport ..	South Kensington (2 m. 8 c.) to Williamstown Pier; Footscray Junction to Albion (8 m. 20 c.); Sunshine to 7 m. 68 c. 30 l., Ballarat Line; Newport to 22 m. 73 c. 24 l., near Manor; Newport to Sunshine; Power House Line; South Kensington to Melbourne City Abattoirs; Altona Beach Line; Maryborough River Goods.
Seymour ..	Somerton (12 m. 25 c.) to Benalla (121 m. 14 c.); Benalla (121 m. 60 c.) to Yarrawonga; Mangalore to 67 m. 77 c., Goulburn Valley Line; Heathcote Junction to Tooborac (60 m. 20 c.); Tallarook to Mansfield and Alexandra.
Wangaratta ..	Benalla (121 m. 14 c.) to River Murray; Benalla to Tatong; Wangaratta to Whitfield; Bowser to Beechworth and Yackandandah; Everton to Bright; Springhurst to Waggunyah; Wodonga to Cudgewa; Benalla to 121 m. 60 c., Yarrawonga Line.
Shepparton ..	Mangalore (67 m. 77 c.) to Cobram; Murchison East to Colbinabbin and Girgarre; Toolamba to Echuca (144 m. 40 c.); Shepparton to Katamatite; Numurkah to Picola; Strathmerton to Tocumwal.



**NAMES AND ADDRESSES OF OFFICERS.**

**WORKS FOREMEN (continued.).**

HEADQUARTERS.	SECTION.
Flinders-street ..	Flinders-street (0 m. 29 c.) to St. Kilda, and St. Kilda to Brighton Beach Electric Street Railway; Flinders-street (0 m. 29 c.) to Port Melbourne; Flinders-street (1 m. 07 c.) to East Camberwell (6 m. 17 c.); Hawthorn to Kew; Burnley to Waverley-road; Fairfield Park - Deepdene - Ashburton - Oakleigh; Richmond to South Yarra (1 m. 61 c.); Jolimont (0 m. 43 c.) to Hurstbridge; Royal Park (3 m. 40 c.) to Clifton Hill, including Northcote Loop and Fitzroy Lines; Whittlesea Junction to Whittlesea; Macleod to Mont Park.
Oakleigh No. 1 ..	Richmond (1 m. 61 c.) to Dandenong (17 m. 70 c.); South Yarra to Sandringham, and Sandringham to Beaumaris Electric Street Railway; Caulfield to Stony Point and Mornington, and Red Hill; Spring Vale Cemetery Line.
Oakleigh No. 2 ..	Dandenong (17 m. 70 c.) to Morwell (88 m. 40 c.); Warragul to Noojee; Moe to Walhalla; Moe to Thorpdale; Morwell Brown Coal Mine Line; Dandenong to Monomeith (42 m. 40 c.); Koo-wee-rup to Strezlecki.
Lilydale ..	East Camberwell (6 m. 17 c.) to Healesville; Ringwood to Upper Fern Tree Gully and Gembrook; Lilydale to Warburton.
Sale ..	Morwell (88 m. 40 c.) to Orbest; Morwell to North Mirboo; Traralgon to Stratford; Maffra to Briagolong; Sale and Bairnsdale Wharves.
Korumburra ..	Monomeith (42 m. 40 c.) to Port Albert; Nyora to Wonthaggi; Korumburra to Outtrim and Coal Lines; Alberton to Woodside; Welshpool Jetty.
Geelong ..	Manor (22 m. 73 c. 24 l.) to Colac (93 m. 20 c.); North Geelong to Bannockburn (55 m. 10 c.); South Geelong to Queenscliff; Moriac to Wensleydale; Birregurra to Forrest; Fyansford Line.
Cressy ..	Gheringhap (52 m.) to Maroona; Irrewarra (92 m.) via Geelong to Newtown (92 m. 70 c.) via Ballarat; Ararat (132 m.) to Glenthompson (168 m. 3 c.).
Warrnambool ..	Colac (93 m. 20 c.) to Port Fairy; Colac to Crowes; Colac to Alvie; Timboon Junction to Timboon; Terang to Mortlake; Koroit to Yatchaw (220 m. 21 c. 36 l.).
Hamilton ..	Glenthompson (168 m. 3 c.) to Fortland; Hamilton to Yatchaw (220 m. 21 c. 36 l.); Coleraine Junction to Coleraine; Branxholme to Casterton; Heywood to South Australian Border (279 m. 70 c. 68 l.); Hamilton to East Natimuk (273 m. 68 c. 38 l.) (via Hamilton).

## NAMES AND ADDRESSES OF OFFICERS.

### WORKS FOREMEN (continued).

HEADQUARTERS.	SECTION.
Ballarat ..	Sunshine (7 m. 68 c. 30 l.) to Ararat (128 m. 20 c.); Bannockburn (55 m. 10 c.) to Warrenheip; Lal Lal and Bungaree Racecourse Lines; Ballarat to Buninyong; Ballarat Cattle Yards; Burrumbeet Park Racecourse; Ballarat to 86 m. 74 c. 79 l., North Creswick (Maryborough Line); North Creswick to Daylesford and to 74 m. 72 c. (mileage via Karlsruhe); Wambra Junction to Wambra; Linton Junction (76 m. 47 c.) to Skipton; Newtown to 92 m. 70 c., Cressy Line.
Ararat ..	Ararat (128 m. 20 c.) to Murtoa (185 m. 63 c.); Ararat to 132 m., Portland Line; Ararat to Avoca (126 m. 66 c.); Ben Nevis to Navarre; Stawell to Grampians; Lubeck to Bolangum; Murtoa to Patchewollock.
Dimboola ..	Murtoa (185 m. 63 c.) to Serviceton; Horsham to Carpolac; Dimboola to Yaapeet; Jeparit to Yanac; East Natimuk to 218 m. 12 c. via Horsham, 273 m. 68 c. 38 l. via Hamilton—on Balmoral Line.
Maryborough ..	Maldon Junction (79 m. 40 c.) to Birechip (215 m. 08 c.); North Creswick (86 m. 74 c. 79 l.) to Maryborough; Maryborough to Avoca (126 m. 66 c.); Dunolly to Inglewood (149 m. 70 c.).
Ouyen ..	Birechip (215 m. 08 c.) to Mildura and Yelta; Ouyen to Pinbaroo; Redeliffs to Meringur.
Bendigo No. 1 ..	Harcourt (80 m. 60 c.) to Deniliquin; Balranald Line; Bendigo to Tooborac (60 m. 20 c.); Bendigo to 102 m. 09 c., near Eaglehawk; Elmore to Cohuna; Echuca to 144 m. 40 c., Toombamba Line.
Bendigo No. 2 ..	Eaglehawk (102 m. 09 c.) to Yungera; Eaglehawk to Korong Vale (150 m. 30 c.); Inglewood to 149 m. 70 c., Dunolly Line; Wedderburn Junction to Wedderburn; Kerang to Murrabit.
Woodend ..	Albion (8 m. 20 c.) to Harcourt (80 m. 60 c.); Lancefield Junction to Lancefield; Karlsruhe to Daylesford (74 m. 72 c.); Redesdale Junction to Redesdale; Castlemaine to 79 m. 40 c., Maryborough Line; Maldon Junction to Shelbourne.
Korong Vale ..	Korong Vale (150 m. 30 c.) to Kulwin and Robinvale.

### SIGNAL AND TELEGRAPH BRANCH.

Name.	Title.	Private Address.
F. M. Calcutt ..	Chief Engineer of Signals and Telegraphs	"Everley," Manning-road, East Malvern. Tel.: U 3921
S. F. Jones ..	Assistant Chief Engineer of Signals and Telegraphs	39 Victoria-street, Elsternwick. Tel.: X 4623
W. Forrest ..	Signal and Telegraph Maintenance Engineer	"Clarendon House," East Melbourne. Tel.: J2631
J. E. Ford ..	Chief Clerk	13 Kent-road, Surrey Hills. Tel.: Canterbury 1801

**NAMES AND ADDRESSES OF OFFICERS.**

**SIGNAL SUPERVISORS.**

Name.	Official Address.	Private Address.	Sections Supervised.	
			Elect. Fitters-in-Charge	Signal Adjusters.
Thomas, S. J.	.. Spencer-street ..	.. 'Roskear,' 107 Holmes-road, Moonee Ponds (Phone, F 6343)	1, 3, 4, 5	1, 4, 6
Biddle, R. C.	.. North Melbourne.	.. 48 Newell-street, Footscray (Phone, Footscray 524)	.. 2, 7, 19, 26	2, 3, 7, 8
Porter, A. E.	.. Geelong ..	.. 244 Bridport-street, Albert Park ..	.. 10, 11, 25	24, 25, 26, 27
Smyth, N. S.	.. Ballarat ..	.. .. ..	.. 8, 14, 21	18, 19, 20
Tarrant, L. C.	.. Seymour ..	.. Barrington-avenue, Kew ..	.. 15, 16, 23, 24	11, 12, 13, 14
Beaumont, D. C.	.. Bendigo ..	.. 13 Queen's-avenue, Ascot Vale (Phone, Ascot 2069)	.. 12, 13, 20	15, 16, 17, 28
Bass, C.	.. Ararat ..	.. .. ..	.. 9, 22	21, 22, 23
Ewin, W.	.. Dandenong ..	.. 1 Rugby-road, Oakleigh ..	.. 6, 17, 18	5, 9, 10
Incoll, J. N.	.. Spencer-street ..	.. 18 Verdon-street, Williamstown Beach ..	.. ..	..

**BONDING SUPERVISOR.**

Tunn, W. W.	.. Plinders-street ..	.. 'Kimpton,' 2 Lochardt-street, Caulfield (Phone, U 5298)	..	..
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**NAMES AND ADDRESSES OF OFFICERS.**

**ELECTRICAL FITTERS-IN-CHARGE.**

Official Address.	No. of Section.	Extent of Section.
Flinders street .. ..	1	Port Melbourne Line, St. Kilda Line and Clifton Hill Line up to and including Post No. S. 150 (Noone-street) Victoria Park, the whole of the Flinders-street Yard up to but not including Signal Bridge located 118 yards on 'Down' side of Richmond platform, and to and including Signals W 24, E 24, W 25 and E 25, including all Power Automatic Signals within the Section.
North Melbourne .. ..	2	From, but not including, Signals W 24, E 24, W 25 and E 25, to No. 1 Box, Spencer-street (including the whole of Melbourne Passenger and Goods Yards) to North Melbourne, North Melbourne to Maribyrnong River Box, Macaulay, North Melbourne up to but not including No. 132 R Kensington and Post 19 B Weighbridge Junction, including all Power Automatic Signals within the Section.
Hawthorn .. ..	3	From Down Auto Signal 'L 77,' East Richmond to Healesville, Warburton, Gembrook, Darling and Outer Circle Lines, including all Power Automatic Signals within the Section.
South Yarra .. ..	4	From and including Signal Bridge located at 118 yards on the 'Down' side of Richmond platform up to and including Hawksburn and Sandringham, including all Power Automatic Signals within the Section.
Oakfield .. ..	5	Hawksburn to Hughesdale, Stony Point, Mornington and Red Hill.
Dandenong .. ..	6	Dandenong to Oakleigh, Moe and all Branches.
Footscray .. ..	7	From 'Down' Distant Footscray Junction to Wildwoods, Williamstown Pier and Racecourse, Bank Box, and Newport to Sunshine.
Ballarat .. ..	8	Ballarat to North Creswick, Waukra, Burrumbeet, Cardigan, Buninyong, Daylesford, Lal Lal and Ingliston.
Ararat .. ..	9	Ararat to Maroona, Trawalla, Amphitheatre, Navarre, Graunpauas, Bolaungum, Horsham and Hopetoun.
Geelong .. ..	10	Geelong to Forrest, Queenscliff, Wensleydale, Pootneet, Elaine, Fyansford and Laverton.
Colac .. ..	11	Colac to Warncoort, Port Fairy, Mortlake, Timboon, Alvie, Crowes, Kopke, Skipton, Tatyoon.
Bendigo, No. 1 .. ..	12	Bendigo to Lancefield, Musk, Redesdale and Tooborac.
Bendigo, No. 2 .. ..	13	Baglehawk (Holdsworth Level Crossing) to Bridgewater, Kooloonong, Cohuna, Echuca Racecourse and Deniliquin.
Maryborough .. ..	14	Maryborough to Tourello, Shelbourne, Tarnagulla, Avoca and Cope Cope.
Seymour .. ..	15	Seymour to Heathcote Junction, Pyalong, Alexandra and Mansfield.
Benalla .. ..	16	Benalla to Avenel, Glenrowan, Yarrawonga and Tatong.
Sale .. ..	17	Sale to North Mirboo, Yallourn, Orbost and Briagolong.
Korumburra .. ..	18	Yundhurst to Port Albert, Strezlecki, Wonthaggi and all Branches.

**ELECTRICAL FITTERS-IN-CHARGE.—(Continued).**

Official Address.	No. of Section.	Extent of Section.
Newmarket ..	19	Newmarket to Post No. 132 B Kensington, Post No. 19 B Weighbridge Junction, Flemington Racecourse Line, and Newmarket to Lightwood, and Flemington Bridge to Fawkner.
Inglewood ..	20	Inglewood to Lilanelly, Kulwin, Robinvale and Wedderburn.
Ouyen ..	21	Ouyen to Donald, Merbein, Meringur and Murrayville.
Dimboola ..	22	Dimboola to Serviceton, Yanac, Yaapeet and Bolangum.
Wangaratta ..	23	Wangaratta to Wahgunyah, Albury, Cudgewa, Yackandandah, Bright and Whitfield.
Shepparton ..	24	Shepparton to Tabilk, Colbinabbin, Giregaree, Koyuga, Picola, Cobram and Katamatite.
Hamilton ..	25	Hamilton to Noradjuha, Calvert, Warrong, Portland, Mount Gambier, Casterton and Coleraine.
Clifton Hill ..	26	Clifton Hill to and including Automatic Signal S. 149, Whittlesea, Hurstbridge, Bower Crescent and Fitzroy.

**NOTE.**—The Electrical Fitter-in-Charge for the Section must be promptly communicated with whenever any Electrical Instrument or any Electrical Apparatus requires attention.

**SIGNAL ADJUSTERS.**

Official Address.	No. of Section.	Extent of Section.
Flinders-street ..	1	Flinders-street to Victoria Park, Richmond, St Kilda, Port Melbourne, and Sandringham.
Spencer-street ..	2	Viaduct Junction (Spencer-street) to Maribymong River Box, and Macaulay.
Caulfield ..	4	Armadale to Hughesdale, Stony Point, Mornington and Red Hill.
Dandenong ..	5	Oakleigh to Moe and Brauches.
Hawthorn ..	6	East Richmond to Kew, Darling, Healesville, Warburton, Gembrook and Outer Circle Line.
Newmarket ..	7	Newmarket to and including Down Distant Signals at Kensington, Flemington Racecourse and Lightwood, Flemington Bridge to Fawkner Cemetery.
Footscray ..	8	Footscray to Williamstown Fier and Racecourse, Wildwoods and Bank Box.
Korumburra ..	9	Lynnhurst to Fort Albert, Wonthaggi and Branches, and Stretzecki.
Salé ..	10	Traralgon to North Mirlloo, Orbost, Briagolong and Yallourn.
Seymour ..	11	Seymour to Mangalore, Heathcote Junction, Pyalong, Mansfield and Alexandra.

**NAMES AND ADDRESSES OF OFFICERS.**

**SIGNAL ADJUSTERS.—(Continued.)**

Official Address.	No. of Section.	Extent of Section.
Shepparton ..	12	Shepparton to Tabilk, Tocumwal, Cobram, Picola, Katamatite, Koyuge, Girgaree and Colbinabbin.
Benalla ..	13	Avenel to Glenrowan, Yarrawonga and Tatong.
Wangaratta ..	14	Wangaratta to Albury, Wahgunyah, Wodonga, Cudgewa, Yackandandah, Bright and Whitfield.
Bendigo, No. 1 ..	15	Bendigo to Thunder-street Crossing, Bendigo, Lancefield, Redesdale, Tooborac and Musk.
Bendigo, No. 2 ..	16	Holdsworth-road Level Crossing to Bridgewater, Kooloong, Cohuna, Deniliquin and Echuca Racecourse.
Inglewood ..	17	Inglewood to Kulwin, Robinvale, Llanely and Wedderburn.
Maryborough ..	18	Maryborough to Tourello, Maldon Junction, Shelbourne, Tarnagulla, Cope Cope and Avoca.
Ouyen ..	19	Ouyen to Pinnaroo, Yelta, Meringur and Donald.
Ballarat ..	20	Ballarat to Läl Läl, Buninyong, Cardigan, Burrumbeet, Waubra, North Creswick, Daylesford and Inghiston.
Ararat ..	21	Ararat to Maroona, Trawalla, Armstrong, Amphitheatre and Navarre.
Stawell ..	22	Stawell to Irvine's Siding, Grampians, Bolangum, Dooen and Hopetoun.
Dimboola ..	23	Dimboola to Goroke, Servicton, Yanac and Yaaapeet.
Geelong ..	24	Geelong to Queenscliff, Forrest, Wensleydale, Laverton, Elaine and Fyansford.
Colac ..	25	Colac to Warncoort, Groves, Port Fairy, Mortlake, Timboon and Alvie.
Cressy ..	26	Cressy to Tatyoon, Ondit, Murgheboluc, Kopke and Skipton.
Hamilton ..	27	Hamilton to Portland, Mount Gambier, Casterton, Coleraine, Noradjuha, Calvert and Warong.
Clifton Hill ..	28	Clifton Hill to Whittlesea, Hurst Bridge, Bowen Crescent and Fitzroy.

**NAMES AND ADDRESSES OF OFFICERS.**

**NAMES, ADDRESSES, ETC., OF OFFICERS.  
ELECTRICAL ENGINEERING BRANCH.**

Name.	Title.	Address.	Tel. No.
H. P. Colwell ..	Chief Electrical Engineer	250 Buckley-street, Es- sendon	FU7373
C. G. H. McDonald	Assistant Chief Electrical Engineer	Red Bluff Hotel, Beach road, Sandringham	X6101
H. W. Forster ..	Electrical Engineer ..	87 Merton street, Albert Park	Central 9426
A. Horton ..	Engineer-in-Charge, New- port Power House	4 Oak street, Canterbury	Canterbury 2319
J. Lang ..	Asst. Engineer-in Charge, Newport Power House	56 Electra-street, Wil- liamstown	Williamstown 264
W. V. Steiger ..	Distribution Engineer ..	21 Fulton street, East St. Kilda	Windsor 3186
W. C. Coe ..	Asst. Distribution En- gineer	2 Bletchley-road, Oak- leigh	Oakleigh 456
G. S. Scott ..	Overhead Superintendent	184 Clarke-street, North- cote	Northcote 790
J. D. Ravenscroft	Electrical Superintendent	6 O'Shannessy - street, Kew	Hawthorn 1673
• J. W. L. Varey ..	Engineer - in - charge of Electrical Tests	4 Logan - street, Canter- bury	Canterbury 1836
C. Stevens ..	Chief Clerk ..	6 Hudson-street, Moonee- Ponds	FU7087

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