

VICTORIAN RAILWAYS

INSTRUCTIONS

TO

Employes Engaged in the Operation of

ELECTRIC STREET RAILWAYS

ELWOOD CAR DEPOT



VICTORIAN RAILWAYS

INSTRUCTIONS

TO

Employes Engaged in the Operation of

ELECTRIC STREET RAILWAYS

VICTORIAN RAILWAYS.

INSTRUCTIONS

TO

OF ELECTRIC STREET RAILWAYS.

EFFECTIVE AS FROM JUNE, 1942.

This book is issued for the use and information of employes only, and the instructions contained therein supersede all others of prior date that are contrary thereto.

Every employe who in any capacity is engaged in connection with the Electric Street Railways, and every other employe whom the Head of the Branch concerned considers should be acquainted with these Instructions, must be supplied by his superior officer with, and have with him when on duty and produce when required a copy of this Book of Instructions.

In order to expedite reference, the Instructions have been arranged in suitable divisions (see Table of Contents on next page). Every employe to whom this book is issued must make himself thoroughly acquainted with, and must comply with, every Instruction applicable to him, irrespective of the division in which it is embodied.

By order of the Victorian Railways Commissioners.

TABLE OF CONTENTS.

Definitions	PAGE	
General Instructions	6-7	
	9–32	
Working of Cars	33-57	
Preparing Car for Service	33-37	
Working of Trolley Pole	37-40	
Description of Electrical System	40	
The Circuit Breaker	40-41	
The Controller	41-45	
Faults likely to Arise in the Electrical Equipment	45-47	
Speed of Cars	47-49	
Compulsory and Conditional Stopping Places	49-51	
Tramway Intersections	51-52	
Shunting, etc., at Depots, Car Sheds and Reversir	ng	
at Telinini	52-55	
Car Stopped by Accident, Failure, etc.	55-57	
Air and Brake Apparatus	58-71	
Prevention of Accidents	72-75	
Signals	76-79	
Use of Signals during Repairs to Permanent Way	or	
Overhead Equipment	79-80	
Permanent Way and Works, and Overhead Equipment	81-85	
working Traffic of a Double Line over Single Line	of	
rais, during Repairs or Obstruction	85	
System of Working Single Line by Car Staff	86-89	
Ollform Lime	90-92	
Telephone Communication	93	
Fares System	94-102	
Appeals by Employes against Penalties 10	02-104	
Directions to be Observed in Cases of Electric Shock 105-109		
	10-126	

This book is the property of The Victorian Railways Commissioners, and is issued to—

NAME 5 A	OCCUPATION. UG 1942 = 5 Al
Jud Tripps	KORAMWAY INSPECTOR
	United the second secon

who, by accepting it, agrees to return it to the proper officer when called upon.

DEFINITIONS.

- 1. In these Instructions, and in any amending or supplementary Instructions that may be issued, unless there be something in the subject or context conflicting with such
 - (a) "Street Railways" shall mean any Electric Railway Line operated on any public roadway between St. Kilda Station and Brighton Beach, Sandringham Station and Black Rock, or between such other points as may be authorised under the orders of the Victorian Railways Commissioners; and
 - "Tramway" shall mean any Railway Line worked under the management of the Melbourne and Metropolitan Tramways Board;
 - (b) "Commissioners" shall mean The Victorian Railways Commissioners;
 - (c) "Employe" shall mean any person whomsoever employed by the Commissioners who has been supplied with a copy of this Book of Instructions, whether employed in a permanent office or as a supernumerary;
 - (d) "Officer-in-Charge" shall mean the officer of the Transportation Branch who is for the time being in charge of the operation of the Line;
 - (e) "Motorman" shall mean the person for the time being in charge of the electrical operation of a Street Railway Car;
 - (f) "Conductor" shall mean any employe acting as Conductor, Conductor in Charge, or Assistant Conductor of a Street Railway Car;
 - (g) "Carmen" shall include Motorman and Conductor;
 - (h) "Car" shall mean any vehicle operated on the Electric Street Railways or Tramways;
 - (i) "Trolley" shall mean the car current collecting wheel which makes contact with the overhead contact wire;

- (j) "Overhead Frog" shall mean that portion of the overhead contact wire, where one line branches from another;
- (k) "Section Insulator" shall mean a non-conducting portion of the contact wire joining two electrical sections;
- (1) "Cut-Off-Sign" shall mean a sign displayed to denote the point at which the Motorman must cut off power and coast;
- (m) "Coasting" shall mean running the car without power;
- (n) "Car Staff" shall mean the metal symbol carried by the Motorman to prevent conflicting movements, on any single line section;
- (o) "Flash Report" shall mean the preliminary information sent to the Officer-in-Charge by the senior employe at the scene of an accident;
- (p) Words importing the singular number shall be deemed to include the plural number, and words importing the plural number shall be deemed to include the singular number;
- (q) The term "he," "his" and "him" shall be deemed to refer to either a male or female.

GENERAL INSTRUCTIONS.

2. Every employe must devote himself exclusively to the service, and conform to all the Rules and Regulations and Instructions of the Commissioners; he must reside at whatever place may be appointed, attend at such hours as may be required, and pay prompt obedience to all persons placed in authority over him.

3. The safety of the public shall be the first and most

important duty of every employe.

4. Except where Special Instructions are issued to the contrary, every employe must, before commencing each shift or portion of a broken shift, sign his name and record the time of commencing duty in the Book, or on the Appearance Sheet, provided for the purpose, and similarly must, at the close of each shift or portion of a broken shift, sign his name and record the time at which he ceased duty.

5. (a) No employe is allowed to absent himself from duty, to alter his appointed hours of attendance, or to exchange duty with any other employe, without the special permission of

his superior officer.

(b) If, due to illness or other justifiable cause, any employe be unable to attend at the appointed time for duty, he must advise the Officer-in-Charge, or see that such officer is advised, in sufficient time, to prevent inconvenience arising from such employe's absence.

6. The name and address of every person employed by the Commissioners must be registered at the Depot to which he is attached, so that, if required in cases of emergency, the employe may be readily found. Any change of address must be at once notified, in order that the record may be kept perfect.

7. No employe is allowed to leave the service of the

Commissioners without giving the required notice.

8. (a) Every employe supplied with uniform dress must, when on duty, appear in it clean, neat, and complete, with the tunic (in the case of the two piece suit) buttoned up. The cap must always be worn straight on the head.

(b) Any employe who disfigures or damages any portion of his uniform through private or improper use prior to the

due date for renewal will be called upon to replace such portion at his own expense.

(c) No employe shall remove, alter, or cover his badge whilst in uniform, or wear the badge of another employe.

9. When an employe leaves the service of the Commissioners, he must immediately deliver up his uniform—if one has been issued to him—and all other articles belonging to the Commissioners. Any money that may be due for salary or wages to any employe leaving the Service will not be paid until the Clothing, Books of Instructions, Lamps, Flags, Tools, and all other articles the property of the Commissioners, which may have been supplied to him, shall have been delivered up. If not delivered up, or if any article be missing, or appear to have been damaged by improper use, the cost of such article, or of the repair of such damage, shall, unless he can give a satisfactory explanation, be a debt due from the employe to the Commissioners, and may be deducted from any pay then due, or if such pay be found insufficient to meet the claim, will become a debt recoverable by law.

10. (a) Every employe is responsible for the proper use and preservation of any article or material the property of the Commissioners that may be in his custody or care, and no employe shall sell or dispose of any such article or material without written instructions from the authorised officer.

(b) Except for departmental purposes, no employe shall take or remove from any Railway premises or have in his possession any property of the Commissioners; the fact of any such property appearing to be waste or useless will not be accepted as excusing any infringement of this Instruction.

(c) No employe shall use any article, material or thing the property of the Commissioners to make any tool, pattern or model or any article, material or thing for any purpose other than a departmental purpose.

11. The Commissioners may deduct from the salary or wages of any employe, who is a tenant of any premises vested in the Commissioners, any sums that may be due by him for respect of such premises.

12. Every employe must be prompt, civil, and obliging, and must afford every proper facility for the business to be performed. He must be careful to give the correct information, and, when asked, give his name or number without hesitation. No employe shall use improper language, or enter

into an altercation with the public or a fellow employe, whatever provocation may be given. (See also clause (e), Instruction 57).

11

13. (a) Every Station-master, Clerk, Inspector, Foreman, Motorman, Conductor, Signalman, Porter, Shunter, Ganger, and Trackman connected with the operation of the Streets Railways, and every other employe whom the Head of the Branch concerned considers should be acquainted with these Instructions, must be supplied by his superior officer with, and have with him when on duty, and produce when required, a copy of such Instructions. (See Instruction 14).

(b) The Officer-in-Charge must see that a copy of every printed and written Notice of Signal and other alterations, as soon as possible after receipt, is supplied to each Motorman and Conductor working over the Line affected by the Notice. He must also see that the signature of every such employe is received for the same, in a book provided for the purpose. This book must be available for reference when required.

14. If any employe of the Commissioners should lose his copy of the Book of Instructions or Time Table, or other document which these Instructions require that he should have in his possession, he must immediately obtain another copy from his superior officer.

15. Every officer is responsible for each person under his control keeping the proper records, books, and accounts applicable to his duties.

16. (a) Every employe must assist in carrying out these Instructions, and shall immediately report to his superior officer any infringement thereof, or any occurrence which may come under his notice affecting the safe and proper working of the traffic.

(b) Every irregularity must be reported by the Motorman and Conductor concerned. Even a seemingly most trivial irregularity may develop into a serious matter; therefore every such occurrence should be reported and every effort should be made to obtain and furnish correct particulars.

(c) Any employe failing to report an irregularity which may have come to his knowledge, will incur the same responsibility

as if he were the person in fault.

(d) In any case where any employe does not understand his duty, or is in doubt as to his duty, he must immediately apply to his immediate superior for instructions.

17. Every employe must render his best efforts to effect adherence to the public Time Table, or such special Time Table as may be provided.

18. (a) Employes must neither congregate on the footpath or roadway in front of the Depots, nor loiter in the passages or doorways. When off duty, if they remain about the premises, they are expected to occupy the rooms set apart for

(b) Rooms allotted for the use of employes, and the fittings therein, must be kept tidy and clean; scraps of food, etc., must not be thrown on the floor, and all litter must be placed in the receptacle provided. Writing on the walls or fittings is forbidden, and no notices, pictures, advertisements, etc., shall be exhibited on the walls, unless authorised by the Officer-in-Charge.

19. (a) Any employe knowing of fire or of an accident or of any obstruction or defect likely to cause or contribute to an accident on the Line, must report it, or ensure its being reported at once to the Officer-in-Charge, and must perform such services as such Officer or the occasion may require.

(b) In the event of any outbreak of fire at the Car Sheds, or other departmental premises, the Fire Brigade must be immediately sent for, and pending the arrival of the Brigade, the most effective steps possible in the circumstances must

be taken to deal with the outbreak.

(c) Every employe available, whether on or off duty, must render assistance, and the chemical fire extinguishers, hoses, buckets, etc., provided must always be ready for use and used

Water must not be directed on any electrical wire or piece of electrical apparatus whilst that wire or apparatus is carrying

(d) In any instance in which a Car is on fire in the Car Shed, every effort should be made to remove the car well clear of the shed, or, if this be not practicable, to clear a space around the car affected. (See also Instruction 52).

20. (a) Every employe is forbidden to partake of or have in his possession any intoxicating liquor whilst on duty or on

(b) If any employe in charge consider at any time that any employe under his direction or supervision is unfit to perform his duties properly by reason of being under the influence of intoxicants, he shall suspend such employe from duty, and immediately report the matter to the Head of his Branch by or through his immediate superior.

(c) If at any time any employe should have reason to suspect that another employe on duty is under the influence of intoxicants, he must, by the most expeditious means, at once acquaint with the circumstances the person under whose supervision or direction such employe is working. (See clause (c), Instruction 33).

21. No gratuity is allowed to be taken from a passenger or other person by any employe.

22. No employe shall accept a presentation without the consent of the Commissioners.

23. No employe shall trade, either directly or indirectly, for himself or others.

24. Employes are invited to offer suggestions tending to improvement in the Service, which will be given careful consideration and recognition.

25. No employe shall take out a patent for any appliance tested or used on the Railways, without the permission of the Commissioners, and in the event of permission being given to patent any article used on the Railways, the Commissioners shall have the right to use such article without paying any royalty therefor.

26. (a) No person who is not an intending passenger shall

be allowed on any car.

(b) No employe must be allowed to travel on the Railways unless provided with a proper ticket or free pass; and if an enclosed Driving Compartment be provided no employe must be allowed, unless in the execution of his duty, to ride in such compartment.

(c) No employe, travelling on a pass, must occupy any seat

required for a paying passenger.

27. (a) Carmen must not allow any truck, bicycle, or other vehicle or any animal to be attached to or drawn behind or at the side of the car.

(b) No person must be allowed to ride or stand on the footboard, step, roof or dash rail of any car, and if any person declines to move from such a position he must be removed without unnecessary force; if necessary, the assistance of the nearest Constable must be obtained.

28. (a) If side-barriers be provided on the car it will be the Conductor's duty to see that they are kept down on the "Off" side when the car is running; unauthorised persons must not be allowed to alter the position of a side barrier. (See also clause (j), Instruction 88).

If pneumatically operated doors be provided on the car, One-man type cars excepted, the doors on the Right-hand side must be kept closed when the car is in running and the doors on the other side operated to suit weather conditions. On approaching St. Kilda station and after starting from the Stopping Place on the approach to the Tramway Intersection the doors on the Left-hand side must be closed and the doors on the Right-hand (station) side opened.

(b) In the case of a One-man type car the doors shall be operated as set out in sections (i) to (iv) hereof.

(i) On arrival at Black Rock Terminus the centre doors on the "Up" side must be opened and the centre doors on the "Down" side of the car kept closed.

(ii) On arrival at the Sandringham Station Terminus the centre doors on the Station side of the car and the end door on the opposite side must be opened and when all passengers have alighted the end door must be closed.

(iii) When a car, operated under One-man conditions, is in running between Terminal Points the centre doors on each side and the rear door must be kept closed.

(iv) When a One-man type car is in running between Terminal Points and a Conductor is employed on the car, all doors on the Right-hand side must be kept closed and the doors on the other side operated to suit weather conditions.

29. Unauthorised employes must not take charge of luggage or other articles for the convenience of passengers. All such the regular manner.

30. (a) All lost property found on any car or on any portion of the Electric Street Railway premises or Line, must be promptly handed in: On St. Kilda-Brighton Line all articles found on Down cars and on Up cars on the Down side of the Depot shall be handed in at the Depot Office. Articles found on Up cars between the Depot and St. Kilda shall be handed

in at St. Kilda Station. On the Sandringham-Black Rock Line all articles found, shall be handed in at Sandringham Station.

Each article must be accompanied with a slip showing the name and address of the finder, the name of the employe to whom it was handed and the date, trip and number of the car or details of the place where the property was found.

No employe other than the Officer-in-Charge or Station-master, St. Kilda or Sandringham, is allowed to examine the contents of any parcel or purse, etc., so found.

Any portion of car equipment found on or in the vicinity of the track must be promptly forwarded to the Officer-in-

(b) If application should be made to any employe for lost property which for the time being is in his possession, he must inform the applicant that delivery can only be given at the Depot, or St. Kilda Station on the St. Kilda-Brighton Line or at Sandringham Station on the Sandringham-Black Rock Line.

31. (a) No person, other than an authorised employe or a person having business with the Department, must be allowed to enter the Car Sheds, Workshops or other premises of the Commissioners without the permission of the proper officer.

(b) Unless instructions are issued to the contrary any person trespassing must be requested to leave the premises, and, on complying, must be warned not to go or pass thereon again. If such person refuse to quit, he must be requested to give his name and address, which, with a report of the circumstances, must be handed to the Officer-in-Charge or other responsible officer.

(c) No employe shall bring any stranger on to the departmental premises without the permission of the Officer-in-Charge. Any visitor who may wish to interview an employe upon matters of urgency, may do so upon obtaining the permission of the Officer-in-Charge; the employe concerned must be careful to see that the interview is as brief as possible.

32. No employe shall allow himself to be canvassed for any purpose when on duty.

33. (a) In any case in which one employe is appointed to relieve another, the person about to be relieved shall not, under any pretext, leave duty until the employe appointed to relieve him arrives.

(b) On the change of duty between employes all circumstances which may have occurred out of the ordinary course of working must be communicated to the employe coming on duty, before he takes charge.

(c) No person employed in any capacity shall hand over his duties to any other person whose duty it may be to relieve him unless the person being relieved shall be satisfied of the sobriety of the person whose duty it may be to relieve him. (See also clause (c), Instruction 20).

34. All monetary transactions between employes should be avoided, but senior employes are strictly forbidden to borrow money from, or to come under any pecuniary obligation to, any junior employe.

35. The reading of books or papers on duty and smoking when on duty on cars or on departmental premises, except where specially permitted, is strictly prohibited. Motormen and Conductors are permitted to smoke whilst the car is standing at any terminus other than St. Kilda and Sandringham. All smoking material must, however, be put away immediately the car is about to start. (See also Instruction 46).

36. No employe shall publicly comment upon the administration of the Victorian Railways, or use, for any purpose other than the discharge of his official duties, information gained by or conveyed to him as an employe of the Commissioners.

37. No employe shall address any communication in connection with his public duties or position in the Railway Service other than through his immediate superior officer, or use or obtain outside influence, either directly or indirectly, to represent his requirements.

38. Any employe who has cause to complain of or make a report against any other employe, shall make the complaint or report through his immediate superior to the Head of his Branch within seven days of the occurrence.

39. No employe shall undertake any legal proceedings on behalf of the Commissioners, or on behalf of any other employe, nor shall show or produce any document or book or Instruction or copy thereof to any person not connected with the Department, nor shall directly or indirectly make any communication to any person not officially entitled thereto upon any matter affecting the Department or the business or

employes thereof, or relating to the Railway Service or his own official position or acts or upon any political question or subject whatsoever, without having first obtained authority or instructions from the Head of his Branch or from the Commissioners.

40. (a) Except as otherwise ordered, no employe under 21 years of age shall be engaged in any of the following positions:—Inspector, Motorman, Conductor, Signalman, Fore-

man, Ganger, Trackman, Flagman, or Pilotman.

(b) Before any employe is appointed to the position of Motorman, or Conductor, he must be examined and certified as possessing a full knowledge of the Instructions by the officer or officers authorised by the General Superintendent of Transportation. No employe shall be appointed to the position of Motorman unless also certified as competent by an officer authorised by the Chief Mechanical Engineer.

(c) Every employe must, however, be prepared for examina-

tion or re-examination at any time.

41. (a) Except as shown in clause (b) hereof, only men certified as competent by the authorised officers of the Rolling Stock and Transportation Branches must be allowed to drive cars on any part of the Running Lines or Sidings or in the Car Shed. They are each required to run the car personally, and under no circumstances must they allow any unauthorised

person to operate it.

(b) The Officer-in-Charge may authorise an employe—in order that he may keep in touch with, or learn the duties of a Motorman—to accompany a Motorman, and under his supervision, drive the car. In every such case the regular Motorman will be reponsible for exercising such supervision as will ensure the movements of the car being regulated in conformity with Instructions, and, if circumstances require it, he must at once take full control of the car. If the recruit should refuse to comply with the Motorman's directions, the Motorman must take control of the car and report the circumstances.

(c) Employes practising as above under the supervision of the regular Motorman are not relieved of responsibility for observance of Instructions. (See also clause (e), Instruction 47).

(d) If for any purpose the Motorman should require to leave his compartment, he must take with him and retain his removable controller handle or handles. (See also clause (b), Instruction 83 and clause (c), Instruction 47).

- (e) The Regular Motorman must furnish a written report respecting the competency and general behaviour of each recruit under his supervision.
- 42. (a) The Motorman when on duty, must carry, or see that his car is equipped with, the undermentioned articles, viz.:-
 - (i) A copy of this Book of Instructions, a copy of the current Time-table and Run Book, a Running Sheet, a Hand Lamp (ready for use), a Point Bar, a Hand Chock, a Lifting Jack or Jacks (see clause (d), Instruction 89), an Insulated Ground Wire, and the specified number of the Forms mentioned hereunder, viz. :-

(ii) On Double Lines.-Three Wrong Line Orders.

(b) In the case of a One-man type car, when operated under One-man conditions, the Motorman must be also supplied with a Revenue Journal, Running Journal, Relief Slips, Refund of Fare Forms, Ticket Punch, a Sponge Cloth and such other articles or requisites as may be ordered. (See Instructions re Fares System).

(c) The Motorman must produce all (or any) of the abovementioned articles to the proper officer when required, and he must always have the Hand Lamp, which comprises part of the car equipment, available and ready for immediate use.

43. (a) The Conductor, whilst on duty, must have with him the undermentioned articles, viz.:-

A copy of this Book of Instructions, a Revenue Journal, Running Journal, Relief Slips, Refund of Fares Forms, Ticket Punch, a Sponge Cloth, and such other articles or requisites as may be ordered. (See Instructions re Fares System.)

(b) He must, whenever required, produce all (or any) articles supplied to him, for inspection by the proper officer, and afford any information or assistance that such officer may

require in regard thereto.

44. When taking any car into service the Carmen must see that their respective Kits are complete, and unless otherwise ordered, observe the order shown on the Car Run List.

45. (a) Carmen must be with their cars at such times as are appointed, and they must satisfy themselves that their cars are in proper working order. (See Instruction 75).

(b) Motormen, Conductors, and other employes connected with the running of cars, must, before commencing duty on any shift or portion of a shift, examine the Order Book, Car Run List and Roster and all Notices, also before running additional trips they must, when practicable, ascertain from the Notices posted for their guidance whether there is anything requiring their special attention on those parts of the Line over which they have to travel, and, when practicable, before going off duty, ascertain the time at which they are again required to resume duty.

46. The Motorman and the Conductor must co-operate to prevent accident and work in complete harmony with each other, being at all times alert and attentive to their duties; the Motorman or Conductor must not partake of meals, nor smoke, lounge or read newspapers, etc., on or about the car

in running. (See also Instruction 35).

Relief for meals, etc., must be taken as provided on the Roster. 47. (a) The Motorman must not leave the Driving Compartment nor converse with any passenger whilst the car is in motion. He must give undivided attention to the safe working of the car and, if an enclosed Driving Compartment be provided, he must not permit any passenger or unauthorised employe to enter such Driving Compartment; except in a case of emergency the Motorman and the Conductor must not converse with each other whilst the car is in motion.

If an enclosed Driving Compartment be provided, no parcel, package or goods of any description must be placed in such

Compartment at either end of the car.

(b) Except where otherwise provided in these Instructions the Conductor must not ride in the enclosed Driving Compartment.

In the event of the Motorman becoming incapacitated from any cause, the Conductor must immediately assume control of the car, and provided he holds a Motorman's certificate, he must, if the circumstances warrant it, take the car on as far as the Depot; if the Conductor does not hold a Motorman's certificate, he must first secure the car by applying the Hand Brakes and (taking the removable handles of the Controller) promptly communicate with the Officer-in-Charge.

(c) Except as prescribed hereunder, no car must be left unattended on any Running Line, nor allowed to stand foul of another Line; when any car is left unattended on a Running Line it must be properly secured by the Hand Brakes or the

wheels must be chocked to prevent the car moving.

(i) Except as provided in these Instructions or in a case of special urgency, the Motorman when on duty must not leave the vicinity of his car when on any Running Line, and in the case of special urgency he must first place the Conductor or some other competent employe in charge of the car and inform him of the reasons for his absence. In every case before leaving his car the Motorman must place the Controller to the Off position, apply the Hand Brakes, open the Circuit Breaker, remove the handle or handles of the Controller and unless otherwise provided—see clause (d), section (ii), Instruction 88 retain same in his possession until he returns.

(ii) Except as provided in these Instructions, or in a case of special urgency, the Conductor must not leave the vicinity of his car when on any Running Line, and in the case of special urgency he must first inform the Motorman of the reasons for his

absence.

(d) When starting the car the Motorman must always place one hand on the handle of the Controller and the other hand on the handle of the Brake, and, except where otherwise provided or in a case of special emergency, he must maintain this position whilst the car is in motion.

(e) A seat is provided for the Motorman, but he must not use the seat when approaching Tramway Intersections, or where vehicular or pedestrain traffic is congested; employes learning or practising the duties of Motorman must not be allowed to use the Motorman's seat whilst driving (see Instruction 41.)

(f) Whilst the car is in motion the Motorman must stand or sit perfectly upright. He must keep a sharp look-out all the time the car is in motion, and must pass along the proper track, which, in the case of an ordinary Double Line is the left-hand side of the Permanent-way in the direction in which

the car is travelling.

48. When approaching any road vehicle that is near or foul of the track, the Motorman must sound his Gong repeatedly; he must, however, avoid all risk and must not run nearer to the vehicle than 50 feet, unless it has moved well clear of the track. If the driver of the vehicle should refuse to move clear of the track his name and address should be taken with that of witnesses and if he persists in obstructing the track the nearest

Police Constable must be informed of the circumstances and requested to take action; in every such case the particulars must as soon as possible be reported, in writing, to the Officerin-Charge.

49. Where any person is on, or approaching, the track or any employe is at work on, or near, the track or overhead wires, the Motorman must make use of his Gong; the Gong must be also sounded repeatedly when passing any school or playground which children may be entering or leaving, or when any person is seen to be improperly standing on the footboard or step of an approaching car, or where an animal is on, or near, the track. The Motorman must not, however, depend entirely on the persons or animals keeping clear of the track on his sounding the Gong, but must be prepared to make an emergency stop if circumstances should render that course necessary.

50. (a) Where a procession, whether of civilians, troops or vehicles is proceeding parallel with the track the Motorman must not attempt to run the car alongside or pass the procession unless the persons or vehicles forming it are a sufficient distance from the track to ensure safety. Where there is sufficient space for the procession to move away from the track the Motorman must sound his Gong to draw attention to his desire to pass, but he must wait until all are clear and safely away from the track before passing any section of the procession.

(b) Unless Special Instructions are issued to the Contrary, when a procession is crossing the track the Motorman must stop and wait until the procession has passed, unless the procession has been stopped and the Motorman has been authorised

by a police officer to proceed.

(c) Fire Brigades, Fires, etc.—The Motorman must give the right-of-way to Fire Engines or other Firefighting conveyances or apparatus. (See clause (f), Instruction 52.)

(d) Funerals.—Where a funeral which has to cross the track is closely approaching, the Motorman must stop to permit the Hearse and Mourning Coaches to

pass.

(e) The Governors' Cars.—The Motorman must stop, when necessary, to give precedence to the cars of the Governor-General, the State Governor, and their escorts.

51. The Conductor, or in his absence, the Motorman or other authorised employe, must, if practicable, obtain the name and address of any person who wilfully obstructs the track and also the names and addresses of two or more witnesses, and must furnish a full report in regard to the matter to the Officer-in-Charge.

52. (a) If the Motorman should observe any object close to the track, such as a trestle, barrel, post, etc., he must satisfy himself that such object is well clear, even if such a course involve delay; if he be not certain that the object can be passed with safety, he must not attempt to pass the obstruction, but must stop and arrange for its removal.

(b) Every instance in which any person other than a member of the Permanent-Way Staff excavates in, along, across, or under the track must be promptly reported.

(c) The Motorman must be on the look-out for articles falling from vehicles, and if he observe any such article on or close to the track on which he is travelling or on an adjacent track, he must, if it be likely to form an obstruction, stop and arrange for its removal.

(d) The Motorman must watch diligently for any sign of defective equipment in the car, such as may be indicated by unusual noises and the smell of heated insulation, and must take such steps as may be required to prevent damage to equipment.

(e) If any indication of fire be observed on the car in traffic the Trolley-pole must be lowered at once and secured clear of the Contact Wire; the car must be stopped, all passengers must be removed and prompt action must be taken to deal with the outbreak. Water must not be directed on any electrical wire or piece of electrical apparatus whilst that wire or apparatus is carrying an electric current.

(f) The Motorman must not stop the car in front of or near to a burning building, structure, etc. The Motorman must stop when requested to do so by a Fireman; if traffic be suspended the nearest car must be kept at least 100 yards away from the fire or crowd, and the Officer-in-Charge must be immediately notified.

53. (a) In any instance in which it is necessary, for any reason, to change over a defective car when away from the Depot, a telephone message must be sent to the Officer-in-

Charge stating fully the particulars of the failure, the number of the run, and the name of the Motorman.

(b) The Motorman must report each day, in the Trouble Card Book provided for the purpose, any faults of each car that has been under his control, and must furnish particulars of every defect.

(c) When being relieved from duty the Motorman must inform the employe relieving him of any defect or anything

unusual in connection with the car.

54. The Motorman must furnish a Statement of Running, daily, on which he must fully enter the required particulars in every detail, and furnish information thereon as to any delay, the state of the weather, and any special circumstances affecting the traffic. He must show the time and place each car worked by him was taken into or out of running or changed over, so that the mileage run by each car daily may be correctly recorded.

55. The Motorman must exercise due care to avoid injuring any animal on or near the track. Where horses are crossing the track the Motorman must stop until all are clear; where cattle, sheep or pigs are crossing, the Motorman may, where the track is straight, proceed cautiously at low speed, but he must not enter on to any curve until the track is quite clear.

56. (a) When due to an accident in connection with the car, any person is injured, the nearest Doctor must be summoned if one be required, and the injured person or persons must be conveyed on the car if medical attention can be more quickly obtained thereby.

(b) The injured persons must be rendered every assistance or service possible, and if seriously injured or if unconscious or otherwise unable to take care of themselves and have no relative, friend, or Police Constable to take charge of them, they should be removed on the car (or such other suitable vehicle as can be engaged) to the nearest hospital, Doctor, or Chemist, but if the circumstances permit they should always be removed to a hospital in preference to a Doctor, or to a Doctor in preference to a Chemist.

(c) The full names and addresses of all injured persons should, if possible, be obtained and furnished with the report, but if in a serious condition an injured person must not be pressed for such particulars.

(d) In case of injury or sudden illness necessitating the removal of a passenger from a car, the Conductor or other responsible official must ascertain the names and addresses of the relatives of the person so removed, and promptly communicate the particulars to the Officer-in-Charge, and the latter must, by the most expeditious means, inform the relative

or the relatives accordingly.

(e) In any case of sudden illness or where any person may have sustained an injury by his or her own act (such as by alighting from or attempting to join a car in motion, or from any similar cause not in any way arising from the fault of the Department), and the services of a Doctor may be required, the Conductor, or other responsible official, in charge must be particular in such case to previously inform the Doctor called in that his services are called for and on behalf of the injured passenger, and that he must look to the passenger, and not to the Railway Department for his fee.

(f) Full reports of the circumstances must be furnished

on the proper Form by the Carmen concerned.

(g) Ambulance boxes and stretchers are provided at the Depot for use when and where required, and must be kept complete, in good order, and always ready for use; the Ambulance boxes and stretchers at the St. Kilda, Brighton Beach or Sandringham Railway Stations may also be obtained if necessary.

(h) When any conveyance is engaged for an injured person, its number, description and, if possible, the name and address of the driver and owner must be obtained and furnished with the report; the driver must be referred to the Officer-in-Charge for payment, and the conveyance must be dismissed

as soon as its services can be dispensed with.

57. (a) Whenever an accident occurs to any passenger or property, or the car collides with any person, animal or vehicleother than another Railway Car, for which see clause (d)the car must be stopped at once and, however unimportant the case may then appear, all the facts connected therewith and the full names and addresses of as many witnesses as possible (both on and off the car) one a policeman if possible, must be obtained. Should a car collide with a vehicle, the direction in which the latter was travelling must be reported,

and if the collision occur after sunset employes must note, particularly, whether the vehicle concerned carried a light and, if not, must direct the attention of another person to the fact. The report must also give the name and address of both the driver and the owner, and the registered number and any name shown on the vehicle concerned in the collision; if a horse be injured, the colour and (if possible) the brands must be stated in the report. In any instance in which an animal is killed, the Motorman must stop, and inform the first Permanent-way employe whom he meets.

(b) Witnesses, as to which particular persons, if any, are injured and to what extent, will be needed, and a few of those who are best able to give such evidence should be politely requested to give their names and addresses, in order that their statements may afterwards be obtained by the authorised

officials of the department.

Sometimes people in the vicinity say that they did not see the occurrence, merely to avoid giving their names; their names should nevertheless be obtained. Even if they did not see, they may be able to give the officials the names of another or others who did see the accident, and whose name may not have been obtained. The names and addresses of drivers and owners of vehicles and registered numbers, if any, of the vehicles should be noted.

(c) If a horse fall or any vehicle should break down on the track, or an accident of any kind on another car be seen, the circumstances must be reported by the Motorman or Conductor observing it, and witnesses on their car must be obtained,

if possible.

(d) In the case of one Railway Car colliding with another, or a sudden stoppage due to a sudden application of the Brakes or other circumstance, in which cases no passenger is at fault, Carmen must be cautious in making inquiries not to attract particular attention of passengers to the occurrence. If, however, the sudden stoppage or similar occurrence be due to the driver of any vehicle fouling the track or to any person falling from the car or being in danger of injury, the names and addresses of such persons and witnesses must be obtained.

(e) After an accident, employes should keep their own counsel and communicate with departmental officers only; representatives of newspapers, solicitors' clerks, and members of the Police Department should be referred to the Officer-in-Charge

or to the Head Office. (See also Instruction 12).

(f) In the case of an accident, Carmen and other employes must always be on their guard against making any remarks admitting they are in fault, or blaming each other, or to the effect that the accident is due to any defect in the car, track or brakes, or to a wrong Signal.

(g) Unless authorised to do so by the Claims Agent and except when it is necessary to inform relatives of an injured person, a member of the staff must not call at the residence, or other place, of a person injured by a departmental accident.

(h) If any witnesses object to giving their names they should be courteously informed that their statements may be required if the employes in charge of the car are blamed for the occurrence, and that in the majority of such cases written statements of the facts only, are required.

(i) The district, street, and number and name or location of house should be ascertained in obtaining any address; and the name and number of any Police Constable present should also

be ascertained.

58. (a) Every accident or derailment (however unimportant it may appear) must be reported by the Carmen to the first Inspector or other Officer met with, and in serious cases the Conductor (or Motorman) must as soon as possible communicate the circumstances by telephone or in person to the Officer-in-Charge, and the latter must promptly communicate the particulars to the Head Office in accordance with the Instructions under the heading of Reporting Accidents, in the General Appendix to the Book of Rules and Regulations.

Accidents to employes, however trivial, must be immediately reported to the Officer-in-Charge by employes witnessing them, and the names of other witnesses should be fur-

nished with the report.

(b) When reporting an accident the employe must state whether he witnessed the occurrence or is reporting on information received; in the latter case he must give the name of the informant, the time, place (i.e., locality of spot measured from the nearest stop mark), trip, and car number, and, in any instance in which medical attention has been necessary, the name of the Doctor in attendance, or of the Hospital (if any) to which the injured were taken.

59. (a) In the event of any car being from any cause delayed more than three (3) minutes, the circumstances must be reported in writing, and the cause of the delay must be fully

stated in the report. In any instance in which a car is delayed at the entrance to a Single Line Section awaiting the Car Staff, the Conductor or Motorman must open the telephone-box and remain in attendance thereat; if, however, the delay is of an unusual duration, he must communicate the circumstances to the Officer-in-Charge.

(b) The Motorman must stop the car promptly when directed to do so by a Police Constable; he must not start again until authorised by the Constable. (See also clause (e), Instruc-

tion 106).

(c) In any instance of an unusual Stop, passengers wishing to alight may be allowed to do so, but in order to prevent misunderstanding, they must be informed that the car is not

at the next intended Stopping Place.

60. (a) When a Conductor is employed the Motorman must not receive any fare which it is possible for the Conductor to collect, but may collect fares (during a stoppage only) in a case of emergency, and in such event he must promptly hand to the Conductor all fares which he has collected, and obtain in exchange, and destroy, equivalent cash fare tickets.

(b) On cars equipped with an enclosed Driving Compartment, the Conductor, whilst the car is in traffic, must keep drawn up any blind that screens the Motorman's rear cabin from view of passengers; and when any passenger is travelling in the rear portion of the car, the Conductor must occasionally glance through the cabin window to satisfy himself that the controlling mechanism is free from interference.

(c) The Conductor must see that the doors, windows, sunshades and ventilators of the car are arranged as may be necessary for the comfort of the passengers, and when closing any door the Conductor or Motorman must do so carefully so

as not to injure any passenger or his clothing.

(d) The Conductor must furnish information required by a passenger concerning fares, routes, etc., if the requirements of safety permit, but he must not engage in unnecessary conversation with any passenger or employe whilst the car is in motion. When not engaged in collecting fares, etc., the Conductor must stand in such position as to command a view of the passengers on the car.

(e) The Conductor must devote proper attention to the care and convenience of passengers, and the collection of the due fares. He must direct intending passengers to those portions of the car in which seats are available, and, if necessary, must politely request sitting passengers to "Make room, please," in order that the seating accommodation may be properly and fully utilised. Passengers must not be allowed to loiter in the gangways, and the Conductor must see that delay due to this cause shall not occur.

(f) The Conductor in charge must render every possible assistance to any person authorised in writing by the Officer-in-Charge to learn the duties of a Conductor, and must instruct him, particularly as to the names of the streets, fare sections, issue of tickets, receiving and remitting cash and tickets, keeping the Running and Revenue Journals, lighting the car, attending to the Trolley-pole, Brakes, and cleanliness of car, etc.

(g) The Conductor must furnish a written report respecting the competency and general behaviour of each recruit under

his supervision.

(h) The Assistant Conductor is under the control of the Conductor-in-Charge, and the latter will be held responsible for the proper performance of the duties of the Assistant. The Assistant Conductor must inform the Conductor-in-Charge of any dispute (however unimportant) with a passenger as to fares, or of any accident or other unusual incident and the Conductor-in-Charge must personally investigate such occurrence.

(i) Conductors, Assistant Conductors, and Motorman in the case of a One-man type car when operated under One-man conditions, are responsible for the cleanliness and care of the cars in their charge, and as far as possible must keep such cars free from dust and dirt. Dusters and waste, when not in use,

must be kept out of sight.

61. (a) Except in a case of urgency the Motorman or the Conductor, whilst on duty, must not call out to any other employe or to any person; in the event of the Motormen or Conductor of passing cars requiring to give any important official information to one another, they must stop their cars, walk up to each other and deliver the information quietly, but with reason-

(b) Carmen must carry out their duties in such a manner

as to avoid undue delay or loss of time.

62. (a) A young child, unaccompanied by an adult, must not be allowed to ride on any outside seat, neither must any child be allowed to stand on any car seat, nor play about any car.

(b) Carmen must not take possession of, or in any way assume responsibility for, any child or any package or article which a passenger may bring on to the car.

- (c) Carmen must not allow any passenger to take on the car any goods which are of a dangerous nature, such as Benzine, Petrol, Acid, etc., or a plate of glass, saws, an open pot of paint, etc., which are liable to injure the fittings of the car or the clothing of any passenger. No passenger or employe must be permitted to bring into the car any large parcel or other article that would encroach on the space required for, or which may be objectionable to, other passengers.
- (d) In passing through the car Carmen must be careful not to damage any article belonging to a passenger, and must politely request the owner to remove any article that obstructs any passage.
- 63. (a) Smoking must not be allowed on the car except in the portion especially set apart for that purpose. When necessary, passengers must be requested to refrain from placing their feet on the seats or expectorating in the car.
- (b) Carmen must not allow any intoxicated person to board or to remain on the car.
- (c) Carmen must not allow, on the car, the playing of any musical instrument, the solicitation of alms, the collection for charities, the selling or sorting of newspapers or unauthorised distribution or posting of advertising notices or cards, and if any such offence be committed the offender must be warned and the particulars reported to the Officer-in-Charge.

(d) Carmen must not allow any dog to travel or be

carried on the car.

64. (a) Carmen must not permit any person to behave in a disorderly manner on the car, and must furnish a full report of every occurrence of disorderly conduct. In the event of any passenger being disorderly, or annoying another passenger, the Conductor or other responsible employe must take action as follows :-

(i) The offender must be requested to cease the annoyance, and warned that he is liable to incur a penalty and to be removed from the car.

(ii) If the offender still persists in the annoyance, he must be requested to leave, and if he refuse to

do so, he must be removed, without unnecessary force. If the aid of the Police can be readily obtained, a Constable must be called in to render assistance or to take any charge that it may be necessary to prefer.

(iii) The name and address of each offender and of the person or persons complaining (if any), and also of two or more witnesses must be obtained.

(b) Carmen must, as far as practicable, prevent any passenger from damaging the car. In the event of any window, or lamp of the car being accidentally broken, the amount specified in the list of charges for such breakages, must be collected from the person responsible for the breakage; if payment for such damage be refused, or if the damage be extensive, the name and address of each passenger concerned, and of two or more witnesses, must be obtained and the occurrence reported to the Officer-in-Charge.

(c) It must be understood that payment is only to be accepted when it is quite clear that the damage has been accidental. In any case in which it appears to have been of a wilful or malicious character, the name and address in full of the person concerned, and, if possible, witnesses, must be obtained; special precaution must be taken to verify by means of the person's card, or an addressed envelope which has passed through the post, the correctness of the name and address furnished.

(d) Compensation for damage to departmental property of the Branch concerned.

65. (a) Carmen must refix any advertisement that may become displaced in the car, or, if unable to do so, the advertisement must be handed to the Officer-in-Charge who must be informed of the number of the car from which it was removed.

(b) An unauthorised employe must not be allowed to fix, or interfere with, any advertisement in the car.

(c) No car must be decorated with bushes, sketches, or flags, or in any other way without special authority.

66. Discretion must be used in the enforcement of the By-laws; the attention of any person infringing a By-law must be invited thereto in such a manner as not to attract the notice of others, and under no circumstances shall any employe give cause for complaint or dissatisfaction by a discourteous word or action. Any employe who is required in

the performance of his duty to deal with a matter not governed by any Instruction, must exercise careful judgment and discretion in so doing, especially if any member of the public be concerned.

67. In the case of violation of the Railways Acts or of the By-laws of the Commissioners not affecting the safety of the public or their property, and it becomes necessary and is justifiable to use force, it must only be done when all other means fail, and then only such force or compulsion must be used as may be absolutely necessary.

68. Great caution shall be observed in detaining or giving any person, more particularly a passenger, into custody, and as the object of detaining a person or giving him into custody is only for the purpose of ensuring his appearance to answer any charge that may be preferred against him, no person should be detained or given into custody whose name and address are known either to the Conductor or other official, or to any respectable person with whom such Conductor or other official may be acquainted, or who may give a name and address and produce sufficient evidence that they are genuine.

69. If, after being warned to desist, it becomes necessary to remove any passenger and the foundation of the charge appears to be doubtful, he should be first requested to leave, and if he refuse, care should be taken not to use unnecessary force in removing him, and it is desirable that the Conductor or other official, on warning the passenger to desist, should first state to him that he is liable (if he persist in offending) to incur a penalty, and to be removed.

70. Before any person, against whom a complaint is made by passengers, is removed from a car, the Conductor, or other official, who orders his removal shall carefully ascertain the cause and nature of the complaint, and take the names, addresses, and occupations of the parties complaining, in order to prevent an unfounded charge being brought against any passenger.

71. Where the aid of police can be obtained, it is desirable to call a Constable to take any charge which it may be necessary to prefer.

72. In any case in which any of the provisions of the Railways Acts, or of the By-laws of the Commissioners, have been violated, it is desirable that the names and addresses of two or more persons present on the occasion be obtained, and reported with the name and address of the offending person.

73. Whenever any person is detained, or taken into custody. a telegraph or telephone message, stating the name, address, and occupation of such person, and the nature of the charge made against him, must be forwarded instantly to the Head of the Branch, and a written report shall also be sent as soon as practicable, stating, with the particulars of the case, where and when the charge is to be heard.

74. (a) Every employe attending in his official character under a subpoena or order to give evidence, or to produce papers in any court, shall attend such court in performance of, and as part of his official duty. He must as early as possible after the receipt of such subpoena acquaint his superior officer with the fact, and obtain his permission for absenting himself. He shall remit, or cause to be remitted, to the Head of the Branch or other employe authorised to receive such, all fees received by him for the performance of such duty, together with a statement of account and vouchers of the necessary expenses (if any) incurred by him in the performance of such duty.

(b) Railway Employes as Jurors.—In order to prevent the inclusion of the name of any permanent employe of the Railway Department in the lists of persons who may be called upon to act as Jurors, the Commissioners direct that in every case in which a Constable of Police or other official applies to a permanent employe for information in connection with the compilation of the Jury List, such employe shall notify the Constable or other official that he is an employe of the Victorian Railways Commissioners, and therefore entitled to exemption from service as a Juror, in accordance with Section 8 of Act 3707, and request

that his name be omitted from the list.

As an additional safeguard, the Commissioners further direct that every permanent employe shall carefully scrutinise the Jury List, which is exhibited at Court Houses, Post Offices and Municipal Halls during the early portion of March each year, and in the event of his name appearing thereon, that he immediately make application to the Special Court of Petty Sessions for its removal from the list on the ground that he is exempt from service as a Juror in consequence of his being an employe of the Victorian Railways Commissioners.

If any employe be summoned he should hand the Summons to his superior officer so that the Sheriff may be notified of the employe's exemption under the Act.

WORKING OF CARS.

75. Preparing Car for Service.—(a) The Motorman is responsible for the correct manipulation of the car equipment, and must see that the car in his charge is in a fit condition for safe running. Before taking the car from the Shed he must examine the equipment to see that everything is in order, and preparatory to going into running he must carry out-assisted by the Conductor when stated-the following procedure in the order set out hereunder:-

(i) Proceed to car, take possession of all removable handles. At the front or leading end he must see that the Hand Brake is applied, that the Point Bar is in place, that the Lifeguard is in position for running, and in the case of a Bogie Car that the Trolley-pole and its cord are secured as detailed in Instruction 79 (a).

(ii) Proceed to rear of car, see that the Lifeguard is in position for running. Place the Trolley in the trailing position on the correct Contact Wire as

detailed in Instruction 79 (a).

(iii) See that rear Hand Brake is released, that the Point Bar is in place, inspect the Oil Lamp and test the Lighting Circuits.

(iv) Close compressor cut-out switch and note that compressor starts up. At the front end inspect Oil Lamps and test the Lighting Circuits.

(v) See that front Circuit Breaker is open.

(vi) Place Controller and Brake handles in position in front driving compartment, leaving Brake Valve

handle in Release position.

(vii) Test "dead" Controller. Place the handle of the Reverser in a Running position, operate Main Controller handle to Full Parallel position. See that all notches are working freely, then return Controller and Reverser handles to the "Off" position.

(viii) Note that an air pressure of 70 lb. per square inch is reached on the Air Pressure Gauge before the

Automatic Governor cuts out.

- (ix) One-Man Type Car.—Charge "Safety Control Pipe" and reset Emergency Valve by depressing the Controller handle. Hold handle depressed until Emergency Valve is set and Brakes are released for normal operation and tests at front end of car have been completed.
- (x) Test front Hand Brake and leave in "Release" position.
- (xi) Apply and release Air Brake with sufficient applications to note that Compressor starts up when the Pressure Gauge registers not less than 60 lb. per square inch. Note that Brakes have Applied and Released.
- (xii) On cars equipped with pneumatically operated doors, test opening and closing of "On" side doors.
- (xiii) Close front Circuit Breaker with the Controller handle in the "Off" position.
- (xiv) Test front Foot Gong.
- (xv) Test "live" Controller, slightly move car in each direction.
- by removing hand from Controller handle.
 Observe that Brakes have Applied and that
 Circuit Breaker has opened.
- (xvii) Test Sanding Gear and apply Air Brake if not already applied. Note Air Brake Cylinder Piston travel which must not exceed three inches.
- (xviii) Place Controller and Brake handles in position in rear driving compartment leaving Brake Valve handle in Release position.
- (xix) One-Man Type Car.—Reset Emergency Valve by depressing Controller handle. Hold handle depressed until Emergency Brake Valve is set and Brakes are released for normal operation and tests at rear end of car have been completed.
- (xx) Test rear Hand Brake and leave in "Release" position.
- (xxi) See that rear Circuit Breaker is open.

(xxii) Test "dead" Controller. Place the handle of the Reverser in a Running position, operate Main Controller handle to Full Parallel position. See that all notches are working freely, then return Controller and Reverser handles to the "Off" positions.

(xxiii) Apply and Release Air Brake with sufficient applications to note that Compressor starts up when the Pressure Gauge registers not less than 60 lb. per square inch. Note that Brakes have Applied and Released.

(xxiv) Note that an air pressure of 70 lb. per square inch is reached on the Air Pressure Gauge before the Automatic Governor cuts out.

(xxv) On cars equipped with pneumatically operated doors, test opening and closing of "Off" side doors.

(xxvi) Close rear Circuit Breaker, with the Controller handle in the "Off" position.

(xxvii) Test rear Foot Gong.

(xxviii) Test "live" Controller, slightly move car in each direction.

(xxix) One-Man Type Car.—Test Dead Man's Device by removing hand from Controller handle. Observe that Brakes have Applied and that Circuit Breaker has opened. Reclose Circuit Breaker.

(xxx) Test Sanding Gear and apply Air Brake if not already applied.

(xxxi) After Controller and Brake handles have been removed, see that there is sufficient supply of sand in the hoppers; that the car is equipped with a Hand Oil Lamp, a Hand Chock, a Lifting Jack or Jacks (See clause (d), Instruction 89), and an Insulated Ground Wire.

(xxxii) The Motorman must then proceed to the front end and with his Brake handle in the Release position request the Conductor to "open" the Conductor's Brake Valve where provided. (See clause (g), Instruction 91). Having noted that the Brakes have Applied, he will then request the Conductor to close the Conductor's Brake Valve and note that the Brakes have Released.

(b) Having ascertained that the car is in proper order and that the Circuit Breaker is closed, the car is then available for service; if, however, during the process of testing, the Motorman find any defect he must at once report the particulars to the authorised shed employe for attention.

(c) If a car is being prepared away from the Depot and the Air Brake Apparatus should fail to operate satisfactorily, or the Brakes fail to Apply or Release in the respective tests, the car must be regarded as unfit for service and the Motorman

must at once notify the Officer-in-Charge.

76. (a) Before moving a car under any circumstances the Motorman must sound the Car Gong to give notice. (See also clauses (b) and (e), Instruction 106).

(b) No car shall be taken out for a trial trip unless a qualified Motorman is in charge of it, and as far as traffic will permit, every such trial shall be scheduled to suit the Tramway Fore-

man's requirements.

(c) When a car has been taken into Service the Motorman, on the first trip, as soon as practicable after starting, and before exceeding a speed of 10 miles per hour, shall test the Air Brake

and, if provided, the Rheostatic Brake.

If when testing the Brakes as laid down above, any defect be found, the car must be regarded as unfit for service and the Motorman must at once notify the Officer-in-Charge. (See also clause (c), Instruction 98).

77. (a) After sunset or in foggy weather, every car on a Running Line must have the necessary Head Lamps lighted, and must carry a Red Tail Light. Except where otherwise shown, the Head Lights must be White.

(b) Every car is equipped with an Oil Lamp at each end; each Lamp is fitted with a red slide to permit of a White or

Red Light being displayed as required.

(c) The Motorman must see that the proper lamps are placed in their respective positions on the car, and must test all Carlights between 4 p.m. and 4.30 p.m. daily. The Motorman is responsible for seeing that the Head Lights and Destination Signs are showing properly, and the Conductor must see that the Red Tail Light, when necessary, is kept properly exhibited; the Conductor must frequently look to the Red Tail Light, and must examine the lamp before leaving any terminus.

(d) The Conductor—when it becomes necessary—must light or request the Motorman to light all lamps in the car.

In any instance in which the power fails, or in which it is necessary to stop the car on the Running Line after dark and lower the Trolley-pole, or if the lights be extinguished—for any purpose—the Conductor in charge must see that the Oil Lamp at each end of the car is showing properly, and he must be on the alert to protect the car.

(e) In the case of a One-man type Car, when operated under One-man conditions, all lighting must be attended to by the

Motorman.

(f) The lamps on any car running to the Shed after dark must not be extinguished until the car is inside the Shed.

78. Only the authorised fuse or lamp shall be used in any Electric Circuit on a car, and when any lighting circuit fuse is blown, the Conductor, or Motorman if no Conductor be employed, must report the matter and insert a note—stating the number of the car—in the Trouble Card Book. Every used, damaged or blown fuse and burned-out lamp must be handed to the authorised shed employe.

79. Working of Trolley-Pole.—(a) Under normal conditions when a car is in traffic the end of the cord of the Trailing Trolley-pole must be secured to the eye provided for that purpose. In a single truck car the Conductor must secure the end of the cord in the eye provided after he has reversed the Trolley-pole.

The leading Trolley-pole of a bogie car must be secured in the canopy hook and the slack cord must be gathered up and carefully fastened to the eye provided so that it cannot blow

out and cause trouble.

(b) The Motorman must not attempt to apply power unless the Trolley is on the proper Contact Wire, and whenever he becomes aware that the Trolley has left the Contact Wire he must at once place the Controller handle to the "Off" position and except in the case of Instruction 111, he must apply the Brake to stop the car. In cases where the Trolley repeatedly leaves the Contact Wire, the Motorman must make an entry of the circumstances in the Trouble Card Book, and if it occurs at one position of the overhead, the locality should be accurately recorded. If the Trolley comes off frequently or sparking occurs the Motorman must communicate the particulars to the Officer-in-Charge as soon as practicable.

In any instance where the Trolley-pole or cord fouls the overhead or wires of any Corporation, full particulars with the

date, time and location of the incident must be forwarded, in writing, to the Officer-in-Charge as soon as possible.

(c) The Conductor must see that the Trolley is on the proper Contact Wire; if, however, the Trolley be observed to be on a wrong Contact Wire whilst the car is in motion it must be immediately stopped and the Trolley placed on the proper wire.

(d) Except as prescribed in Instruction 111 or where specially authorised no car must be run with the Trolley off the Contact Wire. In the event of the Trolley leaving the Contact Wire, the Conductor must signal at once to the Motorman to stop, and attempt by means of the Trolley-cord to keep the Trolley-pole and wheel clear of all overhead equipment until it can be replaced on the Contact Wire.

The attention of the Carmen is directed to Instruction 111 respecting the working of Trolley-poles during repairs to the overhead electrical equipment.

(e) In order that a Motorman may maintain full control of the car, the Trolley, except as prescribed in Instruction 111, must be kept on the Contact Wire when descending any

gradient.

(f) Except in the case of a One-man type car operated under One-man conditions, the Conductor must hold the Trolley-cord taut, when leaving the Shed and when changing lines at a Crossover Road, so as to prevent the Trolley-pole from fouling any portion of the overhead equipment should the Trolley become displaced. (See also clause (i)).

(g) It is the duty of a Conductor on a Single Truck Car, which has only one Trolley-pole, to reverse the Trolley-pole at each terminus; after sunset he must not remove the Trolley from the Contact Wire until all passengers have alighted

(See clause (k), Instruction 88).

(h) On a Bogie Car, which is provided with two Trolley-poles, the trailing Trolley alone, except as shown in clause (i) hereof, must be used. This Trolley must be placed on the Contact Wire by the Motorman, but under no circumstances should the two Trolleys of a car be both placed on the Contact Wire, if by so doing the Trolleys would be one on each side of a Section Insulator. Before changing ends the Conductor must lower the Trolley-pole that will be leading, place it in the hook provided for that purpose, and secure it in that position by means of the Trolley-cord. (See clause (a)).

(i) In the event of a Trolley or Trolley-pole being damaged it must be lowered and properly secured. The leading Trolley may then be used in the trailing position provided its cord is properly secured. (See also clause (m)).

(j) (i) No car must be run with a Trolley-pole in the facing position except for a short distance in case of emergency and then only when the track is straight. In every such case the Conductor must hold the Trolley-cord taut, and be on the alert to promptly signal to the Motorman to stop the car should

the Trolley leave the Contact Wire.

(ii) Where it is necessary to move a car backward, this must be done slowly and cautiously and the Conductor must keep a sharp look-out at the rear and be prepared to signal to the Motorman to stop

where necessary.

(iii) In the case of a One-man type Car, when operated under One-man conditions, and no competent employe is available to act as laid down for the Conductor in either section (i) or (ii) hereof, the Motorman must reverse the Trolley-pole and drive the car from the leading end in the direction of the movement.

(k) When altering the position of a Trolley-pole, Carmen must exercise care to avoid damaging any light cluster, business sign, etc., or striking the pole against a verandah or the roof

of the car.

(1) In the event of it being necessary to adjust the Trolley

tension when the car is in traffic :-

(i) The Trolley-pole or its base must not be touched unless the Trolley is removed from and secured clear of all overhead electrical conductors, otherwise a serious shock may be received. Trolley tension adjustments must only be performed by the authorised Shed employe.

(ii) When the Trolley has been secured as set out in section
(i) hereof it must only be replaced on the Contact

Wire by the Shed employe concerned.

(m) Should a Trolley-cord become detached or broken when the car is in traffic, the Carman must, before repairing the cord, lower and secure all trollies on the car. Carmen are warned that when a Trolley is on the Contact Wire, the Trolley-

poles and bases are alive. Care must therefore be taken when lowering a Trolley to use non-conducting material. No unauthorised person shall be permitted to interefere with a Trolley-pole.

(n) Unless otherwise provided a Trolley or Trolley-pole must not be left in contact with the Contact Wire or with any "live" or "earthed" metal, when in the Shed.

(o) When, from any cause, the Trolley is removed from the Contact Wire, the car must be stopped to permit of the Trolley

being replaced.

80. The Motorman must shut off power when passing under any place marked by a Cut-off-Sign. On the South side of Fitzroy Street, in addition to the Cut-off Sign, a line of metal studs is placed on the road surface. (See also clause (e), Instruction 87).

BRIEF DESCRIPTION OF ELECTRICAL SYSTEM.

81. (a) Power is generated at Newport Power Station by

means of steam-driven Turbo-Alternators.

(b) The Alternators generate electrical energy as Threephase Alternating Current which passes into the Switchhouse, where by means of switches any Alternator may be connected to or disconnected from the Main Busbars; from these Busbars the current at 20,000 volts is transmitted to the various Substations by means of underground cables.

(c) At each Street Railway Substation the 20,000 volt current is first stepped down to a voltage suitable to operate Rotary Converters, which convert the Alternating Current to 600 Volts Direct Current; the Direct Current is then transmitted to the overhead Contact Wire suspended over the track or tracks from wood poles erected at the sides of the roadway.

(d) From the Contact Wire, the current passes to the Trolley then through the Circuit Breaker, the Controller and the Motors, then via the Motor Cases, axles and wheels to the track rails—the rails being bonded together throughout and connected to the Negative Busbar of the Rotary or Rotaries at the Substation.

82. The Circuit Breaker.—(a) This is a single-pole Switch fixed above the Controller at each end of the car, and when closed it supplies current to the Controller. The

Circuit Breaker is provided with an operating handle and the alternate positions ("On" and "Off") are marked on the apparatus; when the car is in Service the normal position of the Circuit Breaker is "On," i.e., Closed.

(b) The Circuit Breaker may be opened by hand according to requirements, but in the event of excess current which may be caused by an overload or a short-circuit the Circuit Breaker opens automatically and thus protects the electrical

apparatus of the car.

In the event of the Circuit Breaker opening automatically more than twice during the course of a round trip, the Motorman must report the fact on the first occasion thereafter that he arrives at the Depot. (See clause (c), Instruction 84).

Carmen must not interfere with the adjustment of the Circuit

Breakers.

(c) Before closing the Circuit Breaker the Motorman must, under all circumstances, see that the handle of the Controller

is at the "Off" position.

(d) The Circuit Breaker at each end of the car must be kept closed except when the car is stabled in the Car Shed, or when in case of a defect or other emergency it becomes necessary to examine or adjust the contacts of the Controller, or to inspect the undergear of the car; before attempting any such work or inspection the Motorman must open the Circuit Breakers. (See clause (h), Instruction 84).

83. The Controller.—(a) The Controller regulates the supply of current to, and alters the connections of, the motorsthus controlling the speed of the car. One Controller is fitted

in each of the driving compartments of the car.

It consists, essentially, of a Vertical Drum, rotated by the Main Controller handle; to this Drum a number of Contact Segments is fixed; when the Drum is rotated these Contact Segments connect with Spring Contacts (called fingers) on the stationary portion of the Controller.

It must be borne in mind that with a Trolley on the Contact Wire the internal parts of the Controller are alive when the Circuit Breaker is closed. (See clause (a), Instruction 82). The interior of the Controller is normally covered by a movable Shield called the Controller Apron, and in no circumstances must this apron be removed from its normal position unless the Circuit Breaker is open.