

When all items discussed
at 1953 conference.

Works
Division

A diagram of these items should only
be prepared if members accept the
summary does not adequately cover the
matter. It will be noted from the summary
that many electrical items have been marked
for further development, and these, listed
below, appear later in the agenda.
However, any other item may be added if
desired.

- 1. Trolley Wheels
- 2. One 1/2" diameter
- 3. Trolley Wheels
- 4. North Connection -
Maximum Traction
Cars.

B

9. ELECTRICAL SYSTEM

Ballarat

(a) It has just been noticed that on

AGENDA FOR MEETING AT BENDIGO - MONDAY, 30TH MARCH, 1953.

(a) Controller and Line
Breaker Operation -
Maximum Traction Cars

(b) Arc Suppression Condensers

(c) Lamps - Interior of Trolleys

(d) North Connection
Maximum Traction Cars

line breaker showing contact and the
controller make circuit contacts is
such as to cause the breaker to close
slightly prior to or simultaneously
with the water circuit contacts with
unpleasant burning of the latter.

We are considering, in my case, the
desirability of converting our main drive
apparatus of these controllers to the
replaceable slip type, and think it
likely that a slight increase in their
length may be an advantage in eliminat-
ing this fault. Investigation has
just commenced and it is anticipated
that further information will be
available to the conference, but the
matter is mentioned as being of
possible interest to other branches.

No.	Item	Raised By	Details	Notes
1	Résumé of items discussed at 1952 conference.	Works Division	<p>A discussion on these items should only take place if members consider that the summary does not adequately cover the matter. It will be noted from the summary that some special items have been marked for further discussion, and these, listed below, appear later in the agenda. However, any other item may be raised if desired.</p> <p>1. Employees Duties 3. Trolley Wheels 2. One Man Operation 4. Earth Connection - Maximum Traction Cars.</p>	
2.	<p><u>ELECTRICAL SYSTEM</u></p> <p>(a) Controller and Line Breaker Operation - Maximum Traction Cars</p> <p>(b) Arc Suppression Condensers</p> <p>(c) Lamps - Interior of Trams</p> <p>(d) Earth Connection Maximum Traction Cars</p>	Ballarat Works Division	<p>(a) It has just been noticed that on Maximum Traction Cars fitted with line breakers the relationship of the line breaker closing contact and the controller motor circuit contacts is such as to cause the breaker to close slightly prior to or simultaneously with the motor circuit contacts with consequent burning of the latter.</p> <p>We are considering, in any case, the desirability of converting the main drum segments of these controllers to the replaceable tip type, and think it likely that a slight increase in their length may be an advantage in eliminating this fault. Investigation has just commenced and it is anticipated that further information will be available to the conference, but the matter is mentioned as being of possible interest to other branches.</p>	

Item No.	Item	Raised By	Details	Notes
<u>ELECTRICAL SYSTEM</u> (Item 2 Cont'd.)	Bendigo	(b) The views of other branches on the practice of fitting, and effectiveness of radio interference are suppression condensers to traction and compressor motors would be appreciated.		
	Bendigo	(c) It has always been the practice to instal clear 110 Volt lamps supplied from the Branch Store in tramscars. It is considered that pearl or inside frosted lamps would improve the lighting. It is desired to determine what type of lamps the other branches are supplied with.		
	Works Division	(d) This item was originally raised by Ballarat at the 1952 Conference following which it was resolved that Geelong and Bendigo were to inspect Maximum Traction cars and consider the fitting of an independent earth connection from the earth pin to the frame of the car. It is desired to ascertain the results of this inspection.		
	Ballarat	(b)		
3.	<u>BRAKES</u> (a) Testing of Equipment for Fatigue (b) Failure of Rods Due to Possible Flexing	Bendigo	(a) In a letter to the Engineer & Manager of 28th June, 1950 (GSE/ADM), it was reported that a crowded tram standing at Charing Cross had rolled forward on the gradual slope because the connecting rod between the brake cylinder levers had fractured, rendering both air and	

Item No.	Item	Raised By	Details	Notes
	<p><u>BRAKES</u> (Item 3 Cont'd.)</p>		<p>hand brakes ineffective.</p> <p>Inspection revealed that a flaw existed in this rod, and that the material was badly crystallised.</p> <p>It was reported that in future, whilst undergoing truck overhauls, the connecting rods would be tested to their safe working limit, i.e. approximately 5½ tons for 1" dia. mild steel, and when under this load an impact load, by means of a falling weight would be applied.</p> <p>On 11th December, 1952, a somewhat similar but not so serious accident occurred when a driving wheel brake rod on Maximum Traction Car No. 25 fractured in service. This, of course, did not affect the other brakes of the car, but it is felt that standard procedure for the testing or treatment of brake equipment is needed.</p>	
	Ballarat	(b)	<p>In past years several breakages have occurred of the short tie rods, coupling the multiple lever assembly to the pony brake beam where it passes through and is locked by nuts to the latter. All such rods were therefore inspected and annealed, but the breakages continued, and one recently occurred early in the life of a completely new rod. Investigation has led to the conclusion that the breakages are due to flexing of the rod in a</p>	

Item No.	Item	Raised By	Details	Notes
<u>BRAKES</u>	(Item 3 Cont'd.)		horizontal plane at the beam lock nut due to side movement of the tie beam in accommodating itself, through the brake blocks, to the varying position of the wheels and axle which have appreciable axial freedom. Have other branches experienced this trouble and if so deduced any cause?	
4	<u>CAR RENOVATION</u>	Geelong Bendigo	(a) Comparative costs of painting tramcars and a description of the work involved.	
	(a) Painting Costs			
	(b) "Refresher" Coats			
	(c) Cleaning Sponges	Ballarat	(b) One car on which the exterior enamel had after six years' life become very dull, but was otherwise in good condition, as an experiment, was given a coat of clear "Dulux" after light cleaning with steel wool and soapy water. The effect was, as regards restoration of surface and gloss, equivalent to re-enamelling, but the time elapsed to date, approximately three months, is too short to yet indicate possible life. We report this as of possible interest and enquire if other branches have made similar experiment.	
			Some discussion took place on this matter at the 1952 conference. Refer page 15 of minutes.	

No.	Item	Raised By	Details	Notes
<u>CAR RENOVATION</u> (Item 4 Cont'd.)	Bendigo	(e) A synthetic "Spongtex" sponge has been issued from the Bendigo store for some two years and used for washing down the exterior of trams. This type of sponge has proved a poor wearer and a plain, foam rubber sponge found more suitable.	It was observed during a visit to the H. & M.T.B. Malvern depot that their cleaners were using a soft haired scrubbing brush for this purpose. The experience of other branches on this matter is desired.	
5	<u>TROLLEY WHEELS</u>	Geelong	Further discussion regarding trolley wheels. For past discussions, refer page 5.4 of summary, page 16 of 1951 minutes and page 19 of 1952 minutes.	
6	<u>ONE MAN OPERATION</u>	Works Division	This item has been included to provide opportunity for members to raise any points of interest or queries while all concerned are present.	
7	<u>EMPLOYERS DUTIES</u>	Works Division	It is desired to ascertain the effect if any in Ballarat and Bendigo since higher rates have been paid for certain duties and to ascertain if the branches still desire a demarcation between the duties that may be carried out by a shedman and shedman's assistant.	

Item No.	Item	Raised By	Details	Notes
<u>EMPLOYEES DUTIES</u> (Item 7 Cont'd.)			For previous discussion on this matter refer page 4 of 1951 minutes and page 31 of 1952 minutes.	
8	<u>GENERAL DISCUSSION</u>	Works Division	Members are invited to raise any question or other matter that may be of general interest and which has not been included in the agenda.	
9	<u>FIELD INSPECTION BENDIGO</u>	-	<p>Inspection at Bendigo will mainly concern the depots and will include:-</p> <ol style="list-style-type: none"> (1) Comparison between Taubman's "pearline" painted Maximum Traction Car No.17 with Dulux painted car No.18. (2) Inspection of $\frac{1}{4}$" rubber flooring in saloons of Maximum Traction Car No.23. (3) Inspection of single truck trams treated with coat of clear "Dulux" as preservative pending a complete renovation at a later date. (4) Comparison between white painted masonite ceiling in Maximum Traction Car No.26 and varnished ceiling of Maximum Traction Car No.24 which is due for renovation. 	

- (a) Order for Tools
- (b) Order for Spare
- (c) Order for Spare
- (d) Order for Spare
- (e) Order for Spare
- (f) Order for Spare
- (g) Order for Spare

Ballarat

Geelong

(a) Do other branches use any other or special arrangements for their tools for opening up track in the case of lifting or other repair work, and what is the procedure? Has any satisfactory device or method been devised to maintain the standard of the upright side of the rail while working on this and other necessary and before re-laying the rail satisfactorily done.

(b) Order for special order for 1 3/4" wide

AGENDA FOR MEETING AT GEELONG - MONDAY, 13TH APRIL, 1953.

Order for special order for 1 3/4" wide

Order for special order for 1 3/4" wide

Item No.	Item	Raised By	Details	Notes
10.	<p><u>TRACKS</u></p> <p>(a) Rooter for Track Opening</p> <p>(b) Heading of Special Work and Rails</p> <p>(c) Sealing of Roadway</p> <p>(d) Responsibility of Councils</p> <p>(e) Expansion Joints in Rails</p> <p>(f) Limit Marks on Loops</p>	Ballarat	<p>(a) Do other branches use any rooter or scarifier attachments on road roller for opening up track in the case of lifting or other repair work, and with what success? Has any satisfactory device or method been devised to mechanically remove the upturned edges of rail side paving where this has become necessary and before re-sealing can be satisfactorily done.</p>	
		Geelong	<p>(b) Report on the heading of special work and rails with 1-3/4" wide carbon steel.</p>	
		Geelong	<p>(c) Discussion re the method of sealing the roadway adjacent to each rail.</p>	
		Geelong	<p>(d) Discussion as to whether the various Municipal Council are carrying out their responsibilities for road maintenance between tracks and rails in accordance with the "Agreement".</p> <p>Some discussion took place on this matter at the 1952 Conference. Refer page 13 of minutes.</p>	

Item No.	Item	Raised By	Details	Notes
	<u>TRACKS</u> (Item 10 Cont'd.)	Geelong	(e) Expansion joints in tram rails. Some discussion took place on this matter at the 1952 Conference. Refer page 45 of minutes.	
		D.T.S.	(f) An accident during the year was caused through one tram not being clear of the other when passing on a loop. It is understood that one branch has limit marks on all loops to indicate proper stopping positions and such may possibly be well worth considering for other branches.	
11.	<u>TRUCK MAINTENANCE</u> (a) Weight Distribution (b) Tyres - Wear on Maximum Traction Cars	Geelong	(a) Method of testing weight distribution between pony and traction wheels on maximum traction trucks.	
		Ballarat	(b) It has been noted that the nature of the tyre wear on these cars varies appreciably, e.g. in some cases the flanges on all four wheels of a bogie wear outwards on one side and inwards on the other, and the effect is in others diametrical. No apparent reason has been found, and although careful records are now being kept, these are not yet extensive enough for any consistency or "pattern" of behaviour to be revealed. Have other branches experienced a similar effect or deduced a possible cause?	

Item No.	Item	Raised By	Details	Notes
12	<u>TESTING OF MOTORMEN</u>	D.T.S.	<p>It is understood that in one branch the driving test of motormen comes under the depot foremen, whereas in the others it comes under the traffic section. From questions asked at an appointment interview during the year, it appeared that some drivers were not as conversant with the technicalities of a tram as perhaps they should be.</p>	
13	<u>MAINTENANCE COST REDUCTION</u>	Bendigo	<p>Since the Engineer & Manager has instructed that operation costs should be reduced, a discussion as to the extent to which maintenance of:-</p> <ul style="list-style-type: none"> (a) body renovation (b) truck overhauls (c) track maintenance <p>can be reduced to a safe limit would be appreciated.</p>	
14	<u>METAL RECLAMATION</u>	Ballarat	<p>It is thought that where metal of a known specification is reclaimed (e.g. worn suspension bearing and trolley wheels), arrangements could be made for such metal to be segregated and supplied to the suppliers of new castings under more favourable terms than sale as scrap metal.</p>	
15	<u>GENERAL DISCUSSION</u>	Works Division	<p>Members are invited to raise any question or other matter that may be of general interest and which has not been included in the agenda.</p>	

Item No.	Item	Raised By	Details	Notes
16.	<u>FIELD INSPECTION GEELONG</u>		<p>Inspection at Geelong will mainly concern the track and will include:-</p> <ol style="list-style-type: none">(1) Double cross fabricated for Moorabool-Ryrie Street crossing.(2) Rail heading with 1-3/4" wide strip(3) Use of cast concrete blocks with "T" rail.(4) Method of sealing roadway adjacent to rail.(5) Testing of weight distribution between pony and maximum traction.	