

Electricity Supply Department

TRAMWAY MAINTENANCE

NOTES

FOR

4TH ANNUAL CONFERENCE

APRIL-MAY, 1954

THESE NOTES CONTAIN

- (A) Summary of outstanding items from 1952 conference.
- (B) Summary of action required and taken to date from 1953 conference.
- (C) Agenda for meeting at Ballarat - Monday, 26th April, 1954.
- (D) Agenda for meeting at Melbourne - Monday, 3rd May, 1954.

Am. 21.

Am. Ph.

S. 1.

SUMMARY OF OUTSTANDING ITEMS FROM 1952 CONFERENCE



Item No.	Action to be Taken (Refer 1952 Conference Summary)	Action By	Results	Remarks
1.A.1. ✓	Works Division to place a bulk order for tyres on Thompsons, specifying that rough-turning be carried out leaving 3/16" on all diameters.	Works Division	Due to the financial position and the fact that stocks of tyres between the three Branches were sufficient until June, 1954, no action was taken during the past two years. However, it now is desired that an order be placed and a schedule showing the proposed quantities was sent to Branches for comment on 12th February, 1954.	A reply was received from Geelong, 18th February, and Ballarat, 5th March, 1954.
1.A.3. /	Works Division to ascertain M. & M.T.B. practice in relation to minimum dimensions of tyre thickness and flange width and height, and to communicate this information to Branches together with suggested minimum sizes for the provincial city tramways.	Works Division	It was advised in the 1953 conference notes that the M. & M.T.B. use gauges to check tyre thickness but only visually inspect flanges. M. & M.T.B. minimum tyre thickness is 1" and is indicated on some wheels by turning a shallow groove on the outer face at the minimum diameter.	Drawings of suggested gauges for flange wear and coning will be available for comments at the conference under item No. 9d.
1.C.1. /	All Branches to make a survey of special works to ascertain requirements over the next five years.	All Branches	Letters giving requirements received as under: Geelong dated 22nd January, 1953. Bendigo dated 16th January, 1953. A preliminary letter was received from Ballarat dated 9th Octr., 1952	Refer separate sheet for remarks. See page S.5.
1.F. /	Branches to forward to Works Division lists of all tramway components held in Branch stores, together with card number and maximum and minimum holdings to enable a consolidated list to be prepared.	All Branches	No action taken.	Lists not yet received from Branches.

Item No.	Action to be Taken (Refer 1952 Conference Summary)	Action By	Results	Remarks
1.F.	Works Division to prepare a draft schedule giving standard nomenclature for all tramway items with a view to inclusion in the Stores vocabulary. Draft schedule to be sent to each Branch for comment.	Works Division	No action taken.	Lists not yet received from Branches.
3.A.	Branches to send Works Division sample copies of existing records in order that these can be analysed and consolidated in a form most suitable to all concerned.	All Branches	Bendigo submitted samples 16th December, 1952. Geelong forwarded samples 24th March, 1953. Ballarat forwarded samples 7th May, 1953.	Sample forms were completed as originally intended, but the Works Manager subsequently considered that they would serve the purpose better if the actual operations were printed on the routine maintenance sheets and a cost column added to the sheets detailing the major maintenance. This change was discussed during visits to the Branches in the latter part of 1953 and agreed to in principle. The forms are now being amended in this manner and will be submitted to Branches for comment as soon as possible.
6.B.	Works Division to produce drawing of cups and solid pieces required to suit all trams, submit to Branches for approval, and obtain from Branches revised estimates of requirements.	Works Division	Drawing No. W-496 completed and forwarded to Branches 3rd Nov., 1952. Quantities for 3 years' requirements were advised to Works Division by Ballarat on 28th Nov., 1952, Bendigo 12th Jan., 1953, and Geelong 11th Sept., 1953. Comments from Geelong on the drawing and subsequent discovery of a discrepancy in the Branch drawings upon which dimensions for all the cups and inserts had been based necessitated a complete redraw of W-496 in October, 1953.	Production of tooling to produce these cups in quantity was delayed until the position regarding capital expenditure for the current financial year became more apparent. However, steps now have been taken to commence manufacture of a die so that it should be possible to complete the original scheme at an early date.

Item No,	Action to be Taken (Refer 1952 Conference Summary)	Action By	Results	Remarks
6.C.	Works Division, after further consultation with each Branch, to arrange for preparation of drawings showing standard settings for brake components on each type of tram.	Works Division	An endeavour has been made during the year to standardise on some of the main components of the brake gear and copies of drawings were sent to Branches with letter dated 3rd November, 1953. No action has been taken to produce a drawing showing settings as detailed on page 38 of the 1952 minutes.	Nil.
7.B. (11)	Works Division to ascertain the possibilities of getting the material with a different backing from the present white colour, or obtaining some suitable proofing solution, if after trial the material appears to be generally preferable to canvas.	Works Division	This refers to the sample blind manufactured from the plastic material "Poly-vinylchloride".	To be further discussed at the 1954 conference under item No. 6a.

the following remarks in relation to each type of special work. Of course budgetary provision would have to be made within the Branch.

Notes: Standard samples, single ordering and interconnections:

All can be fabricated from standard section rail, all Branches having done such work.

Single blades:

These will have to be cast but should present no difficulty as quite a few patterns exist and castings already have been procured for Bendigo from existing and specially made patterns during the past 12 months. However, as small differences in dimensions, particularly the width of point and heel, are important, the pattern since to be used should be carefully checked with the casting to be replaced before ordering from the foundry. In other words, they can be obtained singly or in two and three, as required, and a bulk order would not be an advantage.

SPECIAL WORK SURVEY - REMARKS

As a result of the 1951 and 1952 conferences, it was decided that all Branches should make a survey of special work to ascertain requirements over the next five years, and that sketches or a schedule of the key dimensions of each size and type of special work should be forwarded to Works Division, for consolidation with a view to bulk ordering.

A comprehensive report, accompanied by a route map showing the position of all special work, was received from Bendigo during January, 1953. This report showed the estimated life of each special work in periods of years for a total period of 15 years.

The Geelong report, dated 22nd January, 1953, was in a summarised form and segregated the special work into three headings, viz. In good order, To be reconditioned, and To be replaced.

A preliminary letter dated 9th October, 1953, was received from Ballarat, and it is understood that the survey in that Branch is still under way.

Working with the Bendigo and Geelong reports, it soon became apparent that there was a great diversity of size and type of special work in these two Branches, and this diversity will probably apply to Ballarat as well. In view of this, it would appear that nothing would be gained from bulk ordering, except in the case of switch houses if these turn out to be of similar dimensions (which is doubtful), and most special work will have to be treated separately within each Branch.

Summing up the position, it should be possible to overcome the situation without undue difficulty as shown by the following remarks in relation to each type of special work. Of course budgetary provision would have to be made within the Branch.

Mates, diamond crosses, angle crosses and intersections:

All can be fabricated from standard section rail, all Branches having done such work.

Switch blades:

These will have to be cast but should present no difficulty as quite a few patterns exist and castings already have been procured for Bendigo from existing and specially made patterns during the past 12 months. However, as small differences in dimensions, particularly the width of point and heel, are important, the pattern sizes to be used should be carefully checked with the casting to be replaced before ordering from the foundry. In other words, they can be obtained singly or in twos and threes, as required, and a bulk order would not be an advantage.

SWITCH HOUSINGS:

These may present a problem as no patterns exist; they would be expensive to make and fabrication of the housing from standard sections would be a particularly difficult and expensive job. However, there may be relatively few castings to be replaced. For example, in Geelong there are 67 switches 7 of which are in good order, 58 can and do require to be reconditioned, but only 2 need to be replaced. In Bendigo, 52 switches are installed but only 4 require replacing within the next five years.

As the total number of switch housings to be replaced may be relatively few, it may be possible to obtain some from the M. & M.T.B. However, the key dimensions would need to be obtained in these instances. If such castings are not procurable from this source, then it will be necessary to face up to the expenditure of patterns, or indent from overseas.

It is requested that in cases where the matter of replacement of a switch housing is imperative within the near future, full details be submitted to Works Division for the requisite action to be taken.

STATEMENT OF ACTION REQUIRED AND TAKEN TO DATE FROM

1951 CONFERENCE

SUMMARY OF ACTION REQUIRED AND TAKEN TO DATE FROM

一

1953 Item No.	Action to be Taken (Refer 1953 Conference Minutes)	Action By	Results	Remarks
1(a) ✓	Tool for turning tyres to be forwarded to Geelong and Bendigo for further experiments.	Ballarat	It is assumed that this action has been taken.	Nil.
1(b) ✓	Works Division to follow up order on M. & M.T.B. for tram rail stock 102 lb. 45 feet 132 lengths 102 lb. 40 feet 10 lengths 102 lb. 30 feet 4 lengths.	Works Division	Letter from Bendigo dated 24th Aug. 1953 requested some rail from this order. Request was satisfied by transfer from Geelong and Ballarat.	No deliveries have been made against this order on M. & M.T.B. <i>Enquire.</i>
1(d) ✓	Works Division to take up with Departmental Tramways Superintendent the matter of rules governing employees, in order to ascertain when these regulations might be issued.	Works Division	Rules sent by Departmental Tramways Superintendent to Branches for final approval, 10th August, 1953. <i>Produce Rules for Report</i>	Letter of comment received from Bendigo dated 14th Dec., 1953, and copies of the reply to this from E. & M. sent to Ballarat and Geelong 21st Dec., 1953. Ballarat endorsed remarks in E. & M.'s letter.
1(e) ✓	Ballarat to retain sample blind for a further one-year's test.	Ballarat	This is the sample blind manufactured from the plastic material "Poly-vinylchloride". It was suggested at the 1952 conference that if it appeared to be superior to canvas and was to be adopted for tramway blinds, then it may be preferable to ascertain the possibility of obtaining a different coloured backing from the present white.	To be further discussed at the 1954 conference under Item No. 6a.
1(f) ✓	Ballarat to transfer six wind-screen wiper drive units to Geelong.	Ballarat	It is assumed that this action has been taken.	Nil.

Controller, Linger, Bendigo, under type collection

Item No	(Refer 1953 Conference Minutes)	By	Results	Remarks
1(f)	Works Division to expedite delivery of balance of order for new windscreen wipers.	Works Division	All windscreen wipers have now been delivered.	Nil.
2(a)	Ballarat to continue their investigations on maximum traction controllers and report anything of special interest to the other Branches.	Ballarat	No results were advised during the year - it therefore is assumed that investigation is continuing.	Nil.
2(b)	It was decided to cease fitting are suppression condensers, and any further action should be only at the request of the P.M.G. to whom complaints are referred.	All Branches	Action to be taken as indicated when required.	Nil.
2(c)	Works Division to take up with Footscray Stores the question of lamps, and communicate further with Branches giving some idea of usage and types.	Works Division	All lamps now held at Richmond, but only two stock lamps suitable for tramcars.	Branches advised in letter dated 26th Oct., 1953, subsequent to which Bendigo requested that 110V 60W E.S. inside frosted and 110V 40W B.C. inside frosted be stocked for maximum traction and single truck cars and Birney cars respectively, if suitable to other Branches. To be further discussed at 1954 conference under item 8b.
	Works Division to ascertain whether M. & M.T.B. have a standard for level of lighting in tramcars.	Works Division	Preston workshops visited 14th Oct., 1953. M. & M.T.B. have no set standard for lighting.	Branches advised in letter dated 26th Oct., 1953.
3.	Works Division to discuss failure of short tie rods and general testing of brake components with M. & M.T.B.	Works Division	No short tie rod failures experienced by M. & M.T.B.	Branches advised in letter dated 26th Oct., 1953.

Item No.	Action to be taken (Refer 1953 Conference Minutes)	Action By	Results	Remarks
3.	Branches to forward to Works Division for examination the next short tie rod which breaks in each Branch. <i>Adrian - Tie Rod.</i>	All Branches	Tie rod sent by Bendigo, 3rd Sept., 1953. Second tie rod received from Bendigo, 29th Oct., 1953.	Tie rod examined by D.S.L., Maribyrnong, and a report returned to Bendigo, 22nd Sept., 1953. Copies sent to Ballarat and Geelong. Second rod was also examined by D.S.L. and similar comments to the first were received.
	Branches to develop methods of testing brake mechanism so that the most effective scheme can be determined.	All Branches	It is assumed that some action has been taken in this regard.	Nil.
	Ballarat to proceed with their theory of brake failure and inform Branches and Works Division of vital developments.	Ballarat	No report received during the year.	Nil.
4(a)	Works Division to ascertain from M. & M.T.B. their procedure regarding painting of tramcars and the frequency with which this work is done.	Works Division	Major repaints carried out by M. & M.T.B. every 4½ years. Experiments now being carried out with "refresher" coats.	Details advised to Branches in letter dated 26th Oct., 1953.
	Where desired, ceilings to be painted white in lieu of varnishing, provided favourable conditions for such treatment exist. A central white panel to be installed in maximum traction cars where it is considered such treatment is more economical than re-varnishing.	All Branches	To be carried out as desired.	Nil.

1953 Item No.	(Refer 1953 Conference Minutes)	By	Results	Remarks
4(c)	Branches to advise Works Division officially of their opinion regarding use of the different types of sponges, so that the information can be passed on to Stores.	All Branches	Bendigo advised their preference for "Aerub", 5th May, 1953.	As far as can be ascertained, the availability of this brand of sponge is irregular, and it therefore cannot be held as stores stock. "DISCO"
5.	Works Division to have ear pattern amended to ensure a more definite groove.	Works Division	Pattern amended.	Nil.
	Works Division to obtain samples of ears from each Branch and check patterns, the lighter type of ear being preferred by the Branches.	Works Division	Two patterns existed for this component, one heavier than the other.	The lighter pattern will be used for future orders.
	Two trolley wheels from each Branch stock to be sent to Works Division for testing dynamically, and these, after balancing, to be used as further test wheels.	All Branches	Wheels received and returned to Branches with letter dated 22nd June, 1953.	To be discussed at 1954 conference under item No. 12b.
	Geelong to revert to standard "U" design for trolley wheels.	Geelong	Standard "U" wheels supplied to Geelong.	To be further discussed at 1954 conference under item No. 12a.
6.	All Branches to make a recommendation to the Engineer and Manager that smoking in rear saloons be permitted.	All Branches	It is assumed that this action has been taken.	Nil. <i>Local disc.</i>

1953 Item No.	(Refer 1953 Conference Minutes)	Action By	Results	Remarks
7.	Segregation of shedmen's and shedman's assistants' duties not to be carried out, but Geelong to arrange for shedman's assistants to perform the same type of work as that done in other Branches.	Geelong	Since the 1953 conference the matter of higher rates for shedman's assistants during "silent" hours has been raised by the Union. Before any definite decision could be given in this regard some uniformity in duties between the Branches would be necessary.	Following correspondence between the Branches and Engineer and Manager, the matter was referred to Works Division. Subsequently a questionnaire was sent to each Branch on 20th Jan., 1954, to facilitate comparison of duties.
8(b)	Ballarat to advise Works Division of requisition and order number, dimensions, and maximum and minimum thickness of mats so that this matter could be followed up.	Ballarat	It is assumed that the difficulty in obtaining mats was overcome, as no further requests to expedite the order were received.	Nil.
8(c)	Branches to submit to Departmental Tramways Superintendent comments on sample cash bags now in circulation.	All Branches	It is assumed that this action has been taken. <i>checked B.T.S.</i>	Nil.
8(d)	Works Division to send Branches time clock catalogues and any further action to be at the discretion of the Branch.	All Branches & Works Division	Catalogues given to Branches on day of Geelong conference, i.e., 13th April, 1953.	Nil.
10(a)	Branches to send to Works Division any tines which require special heat treatment difficult to carry out locally.	All Branches	No tines received for heat treatment so it is assumed that no difficulty has been experienced.	Nil.
10(b)	Branches to conduct experiments in an endeavour to obtain a suitable tool for lifting upturned edges of rail paving.	All Branches	It is assumed that some experiments have been carried out.	Nil.