

BALLARAT TRAMWAYS.

Rolling Stock Improvement.

To draw up a satisfactory economical programme for the improvement in appearance and soundness of bodywork, mechanical and electrical components of the Ballarat tram fleet, two basic facts should first be determined.

- (a) The number of years the system will continue to operate.
- (b) The extent and period of track rehabilitation, as the effectiveness of rolling stock improvement with respect to "ride" improvement, is directly related to the condition of the track.

The single truck trams in the Ballarat fleet were purchased second hand from M. and M.T.B. between 1927 and 1935, and mileages range from 700,000 to 900,000 miles since commencing service in Ballarat. The distances travelled by each tram whilst in service in Melbourne are not known, but are believed to be something like a million miles each. Therefore the total mileage of each tram is probably between $1\frac{1}{2}$ and 2 million miles.

The double bogie trams were purchased as late as 1947-51, and have post M. and M.T.B. mileages of 200,000 to 400,000 miles, with total mileages probably as high as $1\frac{1}{2}$ million miles.

Considering these high mileages, and the ages of the trams, it is understandable that maintenance costs are high and will continue to rise.

It is felt that a programme of improvement to the existing rolling stock would not be worthwhile if they are to remain in service for much in excess of 5 years, and more particularly if some rehabilitation to the tracks is not carried out during that period.

For a prolonged continuation of the service, a programme of vehicle replacement would be necessary, together with track rehabilitation appropriate to the intended life of the service.

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If the existing fleet is to be improved beyond present standards, it could be accomplished by stepping up the rate of body maintenance, modifying some aspects of interior decoration, and introducing more frequent truck maintenance, thus reducing the allowable wear to components vital to the smooth riding of the vehicles. This would require one additional coach builder, one coach painter, one shedman, and one fitter, and an increase in cost approximately ^{ing} £7,000 per year.

A programme of vehicle replacement (if the service is to continue indefinitely) would need to be complete, although it could be conveniently spread over a period. If one man operation could be extended, thus reducing mileage on the double bogie vehicles, their replacement could be postponed for a considerable time.

The period over which the small trams could be replaced, to obtain maximum service at least cost from the remaining vehicles, would be four years. That is, at the rate of four new trams per year.

New tram prices are not known accurately, but suitable replacements for our present one man operation vehicles are estimated to be about £20,000 each.

As mentioned earlier, a programme of this kind for a prolonged continuation of the service would need to be coupled with appropriate track rehabilitation.