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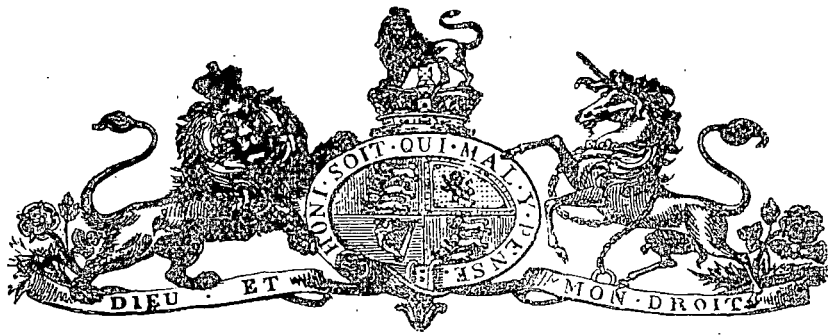
PARLIAMENT OF TASMANIA.

TASMANIAN GOVERNMENT RAILWAYS :

REPORT BY ENGINEER-IN-CHIEF.

Return to an Order of the House of Assembly.

Presented to both Houses of Parliament by His Excellency's Command.



*Public Works Department, Engineer-in-Chief's Office,
Hobart, 31st August, 1889.*

HOUSE OF ASSEMBLY—SESSION 1884.

Order No. 6. Mr. Dooley.

“That the Engineer-in-Chief shall furnish, annually, on or before the meeting of Parliament, a Report upon the condition and requirements of the Permanent Way, Rolling Stock, and Station accommodation of all Railways in Tasmania, distinguishing what is chargeable to repairs and maintenance from what is chargeable to construction and supply of Rolling Stock.”

SIR,

In compliance with Order No. 6, House of Assembly, 1884, I have the honor to submit my Annual Report upon the Railways of Tasmania.

MAIN LINE RAILWAY.

This has been already dealt with in the Report laid before Parliament.

GOVERNMENT RAILWAYS.

I have examined the whole of the lines and find generally that they have been maintained up to a good average standard. I have noted certain items hereafter which should have attention in order to secure the best and safest condition of maintenance, although they include nothing abnormal or actually unsafe.

When I review the present completeness of detail, the low average cost per mile, the severe speed tests on some, and the expenditure on maintenance (including certain extra allowances), I consider that there is cause for satisfaction; and if I compare them with the costly Western Line they are a credit to the care exercised by the construction Engineers, for, if I am rightly informed, the costs of keeping up the Western Line immediately after it was completed and opened absorbed a very large amount of money, (the ballast-train being out for many months), while the new lines have been maintained for from two to five years at no more cost than what is always considered the normal rate. To explain: the estimates for maintenance were admittedly made very low; they were, however, supplemented by Parliamentary grants for ballasting, the cost of which would be only about the equivalent of an extra allowance in the Estimates for maintenance for the usual number of men.

The experience from floods has necessitated not any large quantity of additional waterways in bridging, as on Western Line and elsewhere, but merely some few insignificant timber culverts; while “maintenance” has been relieved by “construction” in replacement of damaged pipe culverts in some places.

It has appeared to me necessary that I should be thus explicit, as some misconception certainly exists.

I may add to above, that before a line is formally opened and accepted it is exhaustively examined and criticised by Traffic Department, and that they have hitherto been relieved of *all charges for maintenance for the first half year* on each line, or (as in Scottsdale line) paid an equivalent by Construction Department,—such maintenance being included in the provisions of the contract as a further guarantee for proper completion by the contractors.

The rolling stock is in good order, and, with the new stock being manufactured or altered in the shops, is equal to best English work, and reflects great credit on the Locomotive Department: there are, however, a great number of passenger carriages standing about on sidings that should be protected from injury by the weather, and the cost of so doing made a charge against construction.

Further remarks as regards each particular line are given below.

NORTH-WESTERN LINE.

Launceston and Deloraine.

Fences—Have been largely repaired, and are now in a much more creditable condition. I should advise that special assistance be given to encourage growth of live fences on this and other lines wherever practicable.

Earthworks.—These have been for years the cause of a heavy drain upon the funds, but are now in a satisfactory state. All possible encouragement should be given to induce a growth of rough grass, upon the slopes of cuttings especially, to save the labour in clearing away the earth, &c. always being washed down by the rains.

Permanent Way.—The “running” top is in fair order, but not so good as on new lines. I noted that the light rails close-sleepered on new lines did not spring more under weight of engines than the heavier rails with wider spacing of sleepers.

There are many portions that are troublesome from wet formation or from sleepers resting on clay which works up, or else, as between Evandale and Launceston, from poor ballast; but this can be remedied from the large surplus stock of first-class ballast now at disposal of Department since the broad gauge was abandoned.

The long life of many of the original sleepers was doubtless due to the fact that it was possible to obtain and select the best peppermint gum in those days; the lasting power of this timber in the ground is well known even if timber is young, for large numbers of half-round peppermint sleepers laid in sand on Main Line near Evandale were hard and good eight to ten years after, as I can testify.

Level Crossings.—As gatekeepers' wages must amount to pretty well £500 per annum, it is worth while to substitute cattle-guards for gates even now, and this can perhaps be done in sufficient number of cases to save, say, £300 per annum.

Bridges.—Repairs to timber bridges noted last year are still in progress, and are done in a thoroughly good style. The Longford Bridge has been protected by painting: the old weakness in wings of brick viaduct and spandrills of same has not further developed. Westbury Bridge should be entirely renewed, as should that at Killafaddy; while at Hobler's Bridge the necessary additional waterway should be provided forthwith, and the stoppage of traffic year after year avoided. These last-named three items are chargeable to construction.

Stations.—The inferior condition of some of the minor stations, and bad sanitary arrangements previously referred to, have been remedied by construction of new buildings, or efficient repair of old ones.

Signal boxes for interlocking signal apparatus have been erected at Evandale Junction and at Launceston. Further alterations are going on in Launceston yard; and in view of increasing traffic in the future it would be advisable to consider and adopt some well-defined plan which could be gradually carried out, as funds are available.

NORTH-WESTERN LINE.

Deloraine to Formby.

Fences.—Fences are in good order.

Earthworks.—Earthworks are generally in good order, but the subsidence and waste from cleaning cesses requires, as usual, to be made up. Cesses require repairing on Dunorlan Flats.

Permanent Way.—A small quantity of ballast is required in places, and on portions of the road the spike fastenings should be tightly secured where, owing to shrinkage, they do not grip the rail. The wet clay cuttings at Spreyton and Tarleton give trouble by clay working up into ballast; additional drainage should be given to these, and cost provided out of construction. About five per cent. of sleepers have more or less decayed, and I can only account for this by so much of the timber of the district being inferior for railway work, and not from want of inspection, which was several times repeated, and large numbers rejected.

Culverts.—Three or four new timber box culverts have been put in at Tarleton, and two open concrete waterways built at Deloraine and Spreyton at a cost of about £5 or so, are shaken, and want repairing. Some extra pipes have also been laid in places for storm relief, or when others have been broken; this is an insignificant expense during four or five years of life of a new line. In so far as these culverts are new, they should be made a charge against construction.

Bridges.—All iron girders must be cleaned, especially of dirt and growth collected near bearings, and painted during the next summer. The timber bridges are generally in very good condition; cracks in one wing each of two small masonry bridges have not increased since last year, and are not important.

Stations.—Require painting and colouring. The two-roomed cottages for porter in charge at minor stations should have an extra room, or two rooms where there is a family. I have arranged with Manager that for all new lines no cottage should be built with less than four rooms. Chudleigh Road Station is about to be re-arranged to accommodate traffic of new branch.

Repairs.—There are only 28 men employed, and the proper complement would be 37—equal to one man for each mile.

Speed.—The line, in common with others, has been designed, and curves laid out, for a maximum running speed of twenty-five miles an hour; but from the first, as now, it has stood well the test of a speed of from thirty-five miles to forty miles an hour as an attained maximum between stations constantly reached. With the heavy stock and the mixed trains on this road, either the limit of twenty-five miles should be strictly observed, or the road be relaid to meet the strain, as the lighter rails can be gradually worked off for use on new extensions where traffic will not be so important.

Charges.—The culverts added are a charge against construction.

FINGAL LINE.

Fences.—Some new fences have been erected in place of old ones where formerly omitted, and out of vote granted for the purpose. The Bain's Patent Fence has not made a satisfactory piece of work, especially at returns, but funds have been provided for altering and improving this, and relieving maintenances charges.

Earthworks.—All in a satisfactory condition, the small slips at Avoca and Vinegar Hill being now at rest, the recent floods affecting line only to a trifling extent.

Permanent Way is in very good order. There has been no expense for maintenance of the line under all the heavy coal traffic for the past three years, beyond the wages of the ordinary number of men usually employed, and small expenses incidental to their labour. From $1\frac{1}{2}$ to 2 per cent. of the sleepers are more or less decayed.

Culverts.—A few extra pipe or small box culverts are required for relief in storms, and in one case a larger culvert is wanted owing to diversion of watercourse by private owners. All these are chargeable to construction.

Bridges.—Only current repairs needed in packing and tightening up during coming summer.

Stations.—All in good order. New buildings have been erected at minor stations as authorised by Parliament. The necessity for better junction accommodation at Conara has been often pointed out, but no improvement has yet been made.

PARATTAH AND OATLANDS LINE.

Fences, where existing, are in good order.

Earthworks.—The embankments on unfenced portions get damaged from time to time by the cattle that are allowed to roam about the streets in Oatlands, but the repairs can always readily be effected by the men in charge. A little more attention is necessary in the drainage in order to protect road sufficiently.

Culverts.—A few pipe culverts have been added, and should be allowed for out of "construction," together with a few more that the last rains showed to be necessary.

Permanent Way.—Notwithstanding the poor rail the road is in very good order, and quite suffices for the light loads. Whenever Parliament decides to extend the line to Tunnack, the tramway character of this line will have to be altered, but at present I see no necessity to expend money for the purpose.

Charges.—As far as I am aware, wages of four labourers and small incidental expenses for tools have practically been all the cost of keeping this line up, while stores of Mersey Tramway rails have been freely indented upon without their value forming any burden on the maintenance expenses. I am unable to see how with any line the maintenance could be reduced below this.

DERWENT VALLEY LINE.

Fences are in good order.

Earthworks.—The pipe-clay in one or two cuttings still gives some trouble. The sandy loam, of which the embankments of the Plenty were made, was washed out in places during flood of June last. These must now be pitched, as well as portion of a bank at Bridgewater, and the work made a charge against construction.

Culverts.—Some few small relief culverts are necessary, and cost should be a charge against construction, the maintenance charges being relieved in this respect as they have been previously, and in connection with the renewal of the bad pipe culverts, which were such a source of dispute with the original contractors.

Bridges.—All are in excellent order. I have reported upon the proposed additional work at No. 3 Bridge. If the work is necessary a small expenditure of under £50 should suffice.

Permanent Way is in good order: but here again I must deprecate any excess over notified maximum speed of 25 miles per hour.

SCOTTSDALE.

This line was opened for public traffic on 10th instant, and is almost elaborately complete in detail, and in excellent order for traffic.

I have the honor to be,

Sir,

Your obedient Servant,

J. FINCHAM, *M. Inst. C.E., Engineer-in-Chief.*

The Hon. the Minister of Lands and Works.

