

(No. 56.)



1887.

PARLIAMENT OF TASMANIA.

TASMANIAN 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, 14th July, 1887.*

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 obedience to the above Order, I have the honor to report as follows:—

MAIN LINE RAILWAY.

This has been dealt with in the usual special and separate Report. (Copy of which is attached.)

NORTH-WESTERN LINE.

Launceston to Deloraine. (45 miles.)

Permanent Way.—Is generally in good order. Portions of bad rails have been replaced with new rails out of the order for 500 tons placed during last year, and the balance, with the rails taken up from the broad gauge, will be sufficient, and save any further cost for rails for a long time to come.

There are 43 men employed on maintenance, and some reduction might be effected here when the line is only narrow gauge.

Works.—Considerable repairs have been effected in fencing, but much more is required. I think it would be very desirable to plant quick-sets over much of this line, as well as on others where growth would be likely, and thus, where possible, obtain good permanent fences.

It is also desirable that some of the slopes should be soiled and sown in order to save the constantly recurring labour of clearing away the stuff washed off slopes into formation drains.

The large number of timber bridges, which were originally inferior in construction to our new timber bridges on other lines, are a source of constant anxiety, and of constant expensive repairs. A current contract for bridge timber for repairs amounts to nearly 100,000 feet, and this quantity has been approached in previous years. The bridges are now 17 or 18 years old, and their further life cannot be taken at much more than seven or eight years. A sum of £1500 was proposed last Session by way of commencement of renewals, of which part was to be expended in concrete work, but it was not passed, on the ground, I believe, that the charge was not correct as against a Loans Bill. The renewal of all these bridges in concrete and iron will cost a very large sum, the accumulated interest on which would equal the cost of renewing timber bridges after an interval of from 25 to 30 years, which is a period that a properly constructed and maintained timber bridge, with moderate repairs, could be estimated to last. The work of reconstruction will take some time, and I should advise that the preparatory working drawings be made now if provision can be obtained for cost of same, and the construction proceeded with as funds may be voted.

The large iron bridge at Longford requires repainting this coming summer, and should not be left longer.

Stations.—The withdrawal of broad-gauge train service will require shifting of sidings, &c. to obtain proper clearances and distances and alterations to platforms; but these latter need not be much interfered with until they require entire renewal, when they should all be made solid and lower to suit standard height: the latter work should be made a charge against "Renewals." The disused rails will also have to be taken up and stacked, in order to their better preservation.

Platforms at Westbury and Longford are in need of lengthening, and the charge for such work should be against "Construction."

A sum of £60 out of "Maintenance" will do much in improving and painting some of the shelter-sheds at minor stations, the appearance of which has been complained of.

New out-offices at some stations, and better sanitary arrangements at others, are required.

Foundations are being put in for storage tank at Launceston.

A residence for station-master is being erected at Longford.

Rolling Stock appears all in good order, and during the completion of the Scottsdale and Derwent Valley Railways, the stock provided for those lines has been, and will be, available for general use.

NORTH-WESTERN LINE.

Deloraine to Formby. (37 miles.)

Permanent Way—(28 men on maintenance.) This is in good order; but a small amount of ballasting must be done during the coming summer to make up subsidence and waste. 100 tons of rails have been provided for emergencies and additions.

Works are all in good order; the timber in structures, being now fairly seasoned, must be well tarred where exposed to weather.

Stations.—Complaints have been made of want of drier road for stock than exists at Chudleigh road, and as the yard must eventually be altered and added to for the Chudleigh line traffic, the expenditure in further raising the station-yard will not be thrown away.

The Whitefoord Hills station sidings have been improved by substitution of stronger rails transferred from Scottsdale stock.

Road connection would appear very necessary to make the Dulverton siding useful to the small farms that it would serve.

The Latrobe wharf siding has not yet been worked.

There is nothing to call for any remarks at other stations.

Rolling Stock.—In good order.

FINGAL LINE. (47 miles.)

Permanent Way.—Is in good order, and is maintained by 40 men; but after this year I think the number might be reduced and expense saved.

Works.—Are in good condition. A small slip has occurred in an embankment near Ormley, but it has been repaired. The slip at Avoca is no longer troublesome, and the Vinegar Hill slopes are still safe and good.

Stations.—Some sidings require shelter-sheds and short platforms, out of "Construction" moneys. The gravelled approaches in yards are cut up with the rains and traffic, and require re-coating and draining, the cost of which is chargeable to "Maintenance."

The Hanbury (or Story's) siding, intended for the accommodation of farms on opposite side of river *via* Story's Bridge, has not been constructed yet. Provision was made in one sum for this siding, with Ormley and Tullochgorum, but the extended requirements at the two last-named caused the funds to be insufficient. Three cottages for train men are in course of erection at St. Mary's, and three more for same purposes at Corners; three platelayers' cottages are about to be erected at sidings: all these buildings will repay good interest in rent receivable, and more of these are desirable, as they are not only reproductive but tend to keep a respectable class of men permanently on the work. I think some alterations for the avoidance of the block now caused by Government trains in the limited yard of Main Line Company at Corners will, ere long, be a positive necessity for convenience of working as well as for the safety of passengers by the Main Line Railway.

Rolling Stock is in good order.

PARATTAH AND OATLANDS LINE. (4½ miles.)

This is still in good condition for the class of line, and the two new carriages referred to in last Report have been completed and put into running.

I have the honor to be,
Sir,

Your obedient Servant,

The Hon. the Minister of Lands and Works.

J. FINCHAM, *Engineer-in-Chief.*

Engineer-in-Chief's Office, Hobart, 18th February, 1887.

MAIN LINE RAILWAY.

SIR,

IN accordance with your instructions I have the honor to report that I have examined the works, buildings, and rolling stock of the Main Line Railway, and give below my remarks upon the same.

The renewal and repair of fences is still proceeding; the total renewal now amounts to about 38½ miles, and much of it is of a construction superior to the original fence. No further slip has occurred at south end of Flat Top tunnel, as noted in my last Report.

Attention has been directed during the past year to the requirements which I advised you were necessary for security of the bridges and culverts. In several places the large culverts and bridges have been protected from scour of floods (which was seriously endangering them) by the addition of stone inverts, rough pitching, and stone outfalls, while a retaining wall has been added to large culvert at Bilton's. The trusses over Humphrey's Rivulet and Macquarie River have been strengthened, and a new deck fixed over the whole length of the Macquarie River Bridge, except at large span: but the defects at both ends of Clarendon Bridge are still unremedied; the northern end is supported with packing, which is loose, while the southern end is unsafe; of two beams under one rail one is utterly rotten.

The temporary props still remain in some of the smaller bridges, and others have been added where the piles have decayed, as at Antill Ponds and Tunbridge, while new beams and plates have been put in other places as required. A large portion of the masonry walling in bridges between Campbell Town and Flat Top is shaken with the traffic; Barwick's Bridge at Antill Ponds having one pier cracked longitudinally, and the Fisher Creek Bridge, referred to in my former report, has developed a slight further settlement, but not to a dangerous extent. Further renewals and repairs are required as per List No. 1 appended.

The tunnel, which is to a large extent unlined, appears still sound. Small pieces of stone are dislodged from time to time by the men in charge as they appear to be likely to fall, but I could not observe many places where this had been done. It would be well for the Company's Engineer to have an examination made of the shafts which are unlined, and test them for any loose stone.

The "running top" of the permanent way is not in first-class order on Jericho Station or on portions of the northern section, and "slacks" occur from subsidence of the embankments, while there are a few bad rails on Evandale incline; the fastenings generally are well looked after, the exception being in some defective joints near Elwick Junction and on Risdon Incline, and an absence of dog-spikes on approach to Horse-shoe Viaduct. Some ballast is required on outside of curves at Lowestoft, Berriedale, and near Eastern Marshes, as well as under ends of sleepers at north abutment of Risdon Viaduct; the sleepers as a whole are now good, while the bad rails have been replaced with 45lb. steel rails, and 1100 tons imported for renewals during the past year; this quantity should suffice for the present.

The platform walls at Evandale and Ross have been removed, and the ordinary platforms dispensed with.

The subject of a light footbridge at Ross Station has again been brought forward, and such is desirable at all places where trains meet.

The old Tea Tree station has been abandoned and a new station-yard constructed.

The buildings, with the exception of those at Epping Forest and Jericho, are in fair order; the Jurusalem Station roof has been covered with galvanised corrugated iron in place of shingles, and this has been also done at the Erecting and Wagon Shops, Hobart, as well as over the Locomotive Shed, where, also, smoke-flues have been provided.

The rolling stock is generally in fair order. Engines Nos. 4 and 15 are under repair. No. 8 was destroyed in the Brighton accident, and No. 9 (injured in Bridgewater accident) has been repaired. The small engine (No. 11) used for local traffic and shunting has been sold, and a locomotive of superior type is now running the local traffic in its place. A new boiler has been placed in one of the goods' engines, and four new boilers are now in the yard. Some of the older coaches require cleaning and painting, and some of the wagon stock also requires painting.

Generally, a steady gradual improvement has been made and is continuing on this Line. Fences are renewed in a manner superior to original construction. The same remark applies to bridge-decks. The sleepers are all increased 50 per cent. in size; weight of rails increased; while the stock is being improved as it is being renewed.

I attach a List (No. 2) of various new works, some of a minor character ; and still think it is a question whether renewals *in excess* of original construction, *e.g.*, weight of rails, size of sleepers, quality of stock, fences, &c., should not be made a charge against "Capital Account" in some fairly approximate manner.

I have, &c.

J. FINCHAM, *Engineer-in-Chief.*

The Hon. the Minister of Lands and Works.

LIST No 1.—RENEWALS AND REPAIRS REQUIRED.

- New beams required for two five-feet culverts near $4\frac{1}{2}$ miles from Hobart.
- To watch piles of Jordan Bridge, which are small, and now gone at heart.
- Channel to be cleared, and new beam put in bridge at Strathallen Creek, Tea Tree.
- Abutment foundations to be protected at "Willows" Bridge, Tea Tree.
- Waterways to be pitched at once, and strong apron built to save abutment wall.
- Waterways to be pitched with large stone, and outfall to be protected.
- Renew bad beams in bridge at Brain's Marsh.
- Renew floor, and rebuild walls of culvert at Hunter's Swamp Creek, 85 miles 75 chains from Launceston.
- Renew beams at Fisher's Creek (timber partially provided.)
- Renew beams at bridge, $73\frac{3}{4}$ miles from Launceston, at once.
- Renew beams at cattle-creep near York Plains siding.
- Waterway to be pitched and foundation protected at Barwick's Bridge, Antill Ponds, and renew some girders (pier cracked longitudinally.)
- Waterway to be pitched and foundation protected at Harrison's Bridge, Antill Ponds, and renew some girders.
- Renew piers of bridges at $64\frac{1}{2}$ miles and $63\frac{1}{2}$ miles from Launceston, and at Blackman's River flood openings (now temporarily secured.)
- Renew top of Blackman's River Bridge at Tunbridge.
- Enlarge culvert at $52\frac{1}{4}$ miles from Launceston, which is too small.
- Renew beams of two culverts near $49\frac{3}{4}$ miles from Launceston.
- Renew piers of Taki Creek Bridge, Ross, (now temporarily secured.)
- Renew beams at $45\frac{3}{4}$ miles and $39\frac{3}{4}$ miles from Launceston.
- Renew piles of Mr. Youl's cattle-creep.
- Build abutments and secure each end of Clarendon viaduct in a permanent manner, and watch some 10 or 12 piles which are shells now from heart decay.

LIST No. 2.—NEW WORKS.

- Yard for Fingal Coal at Hobart.
- Siding at New Town and road along same.
- New station and yard at Tea Tree.
- Addition to Station Master's Residence, Campbell Town.
- Foundation for large iron tank to be erected at Ross.
- Earthwork for extension of sidings at Epping Forest.
- Movable glazed end Launceston Platform.
- Signals at Parattah (for Main Line), and at South Bridgewater.
- Loading-gauges at all Stations.
- Rail-bending machine, with small engine, at Hobart.

NEW WORKS FOR GOVERNMENT TRAFFIC (CONSTRUCTED BY GOVERNMENT.)

- Additions to siding at Parattah.
- Junction at North Bridgewater.
- Junctions at Corners ; two sidings ; signals ; waiting-rooms ; and platform.