

generally for decayed kauri. In many cases the entire topwork above the piles has been renewed others are entirely renewed in ironbark.

We noticed a considerable number of pieces in the bridges rotten at ends or having other defects, in some cases ground-sills are rotten. Several trussed bridges have had repairs in ironbark to top or bottom cords, diagonal struts, floor-beams, and rail-beams. What remains in kauri is old-looking, but still serviceable.

The piles are usually in better condition than on the sections nearer Auckland, which is attributable to the wet, swampy ground, in which kauri does not decay so rapidly as it does where the ground is alternately wet and dry.

There are many box-culverts in wood, which are in fair condition, the exposed ends being that which goes soonest, and which is easily repaired. A few open culverts have ironbark beams, and are in good condition.

Fencing There is very little, and what there is is in good order

Buildings are few, and all in good order At Huntly we found all the buildings in very good condition platform of asphalt, with timber front, in good order, turntable in good order, coal-store, platform a little gone, water-tank stand in good order, privies and urinals in good order and clean, cranes and pump, cattle-pen and loading-bank in good condition.

At Huntly there is a wharf on the Waikato, which is in good condition.

Huntly to Frankton.

Formation Clean, and generally clear of weeds.

Permanent-way From Huntly onwards there are forty miles of 40lb. iron rails, mostly with the objectionable Ibbottson's joint-fastenings, but there are stretches with good fish-plates and fastenings, and many of the curves are laid with 40lb. steel rails. The road is well kept and in very good order, generally well ballasted with sand, but in many places the ballast is scanty and sleeper-ends exposed. Sleepers are mostly kauri, among which are many with rotten ends, but the platelayers renew them with puriri whenever it is time to do so.

The most important bridge is that over the Waikato at Ngaruawahia, which is in very fair condition, one or two of the corbels and one or two of the diagonals are decayed at ends, but these are watched, and will be repaired when necessary. The iron lower cords are in good order and well painted, and so are the tie-bolts. The other bridges are suffering a rapid decay, which is as rapidly repaired with good ironbark. We noticed a great number of pieces much gone, but they are carefully watched by the Bridge Inspectors. Sill and posts of trestles are decayed in places. The piles are generally good, but there are many with saps decayed and somewhat gone at ground-level. Generally the bridges are in very fair condition, as they ought to be, considering the constant repairs they are undergoing. From the constant watching and endless expenditure on these bridges all over the Auckland District, we consider it is a great mistake to use any New Zealand timber in their construction, so long as such a strong and durable timber as ironbark can be had, even if at a greater price than New Zealand timber.

Fencing is all in very fair condition, being, as noticed above, constantly repaired with old sleepers, cattle-stops old but serviceable gates in very good condition.

Station-buildings are in good order and well kept. A few corner-studs and ground-sills are decayed, but with these exceptions all are in good preservation. Privies and urinals, good order and clean. Platform in good order, here and there a little of the woodwork is the worse for age. Loading-banks A few of the front posts decayed, but otherwise in very good order.

At Ngaruawahia the cattle-yards are very old, but will be renewed next year.

At Frankton there is a new cattle-pen, made of iron rails.

Stationmasters' houses all in good order Water-tank stands, water-columns, pump-house, and engine all in good order Siding to wharf has poor sleepers and ballast, but it is not now used.

Wharf at Ngaruawahia Piles good, but planking and beams decayed. This, however, is no longer used.

Ballast siding is in good order

Frankton Station building is in good order, neat, and clean. It is to be removed soon to another site.

Frankton to Te Awamutu.

Formation clean.

Permanent-way 40lb. iron, with good fastenings, but parts of the road have the Ibbottson's joint-fastenings. The road is in very good order, ballasted with sand. In many places ballast is scanty, and sleeper-ends exposed and deficiently boxed up. We were told that the ballast was kept scanty for fear of settling the banks in the great peat swamps. There are places, however, where the line is well ballasted. Generally there are very good puriri sleepers, and we noticed very few in bad condition.

This line was opened between 1878 and 1880, the bridges, therefore, are newer than on above-mentioned lengths. Generally, they are in good condition, although we noticed some piles slightly gone at ground-level, and some beams and sills and other pieces somewhat decayed, which must be renewed in a year or two, and there have been many renewals already. Piles are usually of totara. There are many box and open culverts, all of timber, but in good order and well looked after. On the hard ground concrete culverts and pipes are in use.

The fencing is usually in good order but we saw a few places where it needed repairs. Cattle-stops usually in very fair condition. Gates and signboards very good.

Station-buildings are all in good condition, with the exception of a few ground-sills or corner-studs or covering-boards, which are decayed.