

Garratt locomotives of the two-cylinder and three-cylinder type respectively, and also for these locomotives in lots of six. On receipt of this information the committee will be in a position to come to a conclusion regarding the feasibility of adopting this type of locomotive for our heavy grade working. Of the 184 miles of line between Te Kuiti and Marton a large-sized Garratt locomotive would be restricted to the ninety-one-mile length from Taumarunui to Taihape, the position north of Taumarunui hingeing on the strengthening of the Waitete Viaduct near Te Kuiti. New girders for this viaduct are, however, now being manufactured. Between Taihape and Marton (forty-four miles) an extensive programme of bridge-strengthening will be necessary to enable Garratt engines to be run. The whole question is necessarily wrapped up with the other questions of draw-gear and length of trains. The present car and wagon draw-gear is a combined buffer and draw-bar with only a 2 in. shank. A Garratt engine of greater tractive effort than 40,000 lb. or 45,000 lb. is not practicable with this draw-gear. The present crossing accommodation at stations, governing the length of trains that can be crossed, is another factor.

The modified Fairlie type, being completely rigid, is not considered so suitable as the Garratt type for the short-radius curves experienced on our lines. Another advantage of the Garratt engine is that it can run at high speeds, and can therefore be used almost as well on passenger-trains as on goods-trains, thus fitting in freely on engine-run linking.

Arising out of the matter of tractive capacity of locomotives and the strengthening of draw-gear, inquiries are being prosecuted by the Transportation Branch regarding the actual need of strengthening draw-gear in connection with train-loads, having regard to yard accommodation and crossing-loops.

TRAIN SERVICES AND GENERAL OPERATING.

The reorganization of train services was continued during the year, and the general rearrangement of services was incorporated in the summer time-table which came into operation in November last. This also synchronized with the opening of the New Zealand and South Seas Exhibition, for which additional train services were necessary.

The Wellington-Auckland, Auckland-Whangarei-Opua, Auckland-Rotorua, and Auckland-Thames expresses were re-scheduled, and in each case considerable reductions were made in the time required for the journey. The Napier-New Plymouth and Christchurch-Dunedin-Invercargill expresses were adjusted on somewhat similar lines before the close of the last financial year.

A daylight express was given a trial between Wellington and Auckland during the summer months. The approach of winter, however, made it quite evident that the running of three express trains between Auckland and Wellington during the slack season of the year would not be justified, and that a reduction in the number of trains was inevitable. As the ordinary express and the night limited were each receiving greater patronage than the daylight limited the running of the last-mentioned train was discontinued from the 5th June.

Considerable attention was given to mixed and goods train services. When circumstances permitted additional goods trains were provided with the object of relieving the mixed trains—more especially those connecting the near-by country districts with main centres—so making it possible to accelerate the latter trains and giving better access to the business centres. The matter of providing for later starting-times in the morning and earlier arrival times in the evening also received attention, and improvements in this direction were made wherever possible.

The reorganization of the railway time-tables has given general satisfaction to the travelling public in whose interests the alterations were made.

Fast through goods trains were inaugurated between Christchurch, Dunedin, and Invercargill, and between Wellington and Auckland, Wellington and New Plymouth, Wellington and Napier, and Auckland and Okaihau. These trains enable goods to be conveyed between the terminals in either Island with a period of only one working-day in transit. They also afford fast transit for perishable and urgent