

The tractive effort of the locomotives in service during the year compared with the two previous years is as follows:—

| | 1938. | 1937. | 1936. |
|---|------------|------------|------------|
| Number of locomotives in service .. | 575 | 575 | 578 |
| Total tractive power, in pounds .. | 10,684,559 | 10,691,829 | 10,594,084 |
| Average tractive power per locomotive, in pounds | 18,582 | 18,594 | 18,234 |

Six class³G locomotives of new design were completed in the workshops during the year. The design of these locomotives departs somewhat from New Zealand standard design as in their construction were embodied many parts of the imported Garratt locomotives which previously operated on the North Island Main Trunk Line. The G class locomotive develops greater power than does the AB class, but is not as powerful as the K class locomotive.

Twenty class KA and 7 electric locomotives for the North Island were under construction at the close of the year and 6 class KB and 2 electric for the South Island. Six locomotives were scrapped during the year, making a total of 223 obsolete locomotives scrapped since 1926. Four hundred and twenty locomotives passed through the workshops during the year, and of these 218 received heavy repairs.

During the year 56 locomotives were fitted with electric headlights, making the total number of locomotives so fitted 458, while 16 engines were equipped with the new type "Waikato" spark-arrester.

CARRIAGES.

The number of carriages built during the year was 11, while the number in service as at 31st March, 1938, was 1,471, a decrease of 6 compared with the previous year. One hundred and three carriages of varying types and classes were under construction in the workshops at the close of the year. Eleven new carriages and 4 existing carriages were fitted with roller-bearing bogies, making a total of 118 carriages in service fitted with these bearings. Six carriages were written off during the year.

Forty-five carriages had their lavatories improved (water-sealed hoppers fitted), 6 had new lavatories added, 7 had Westinghouse water-heating apparatus installed in lavatories, 5 were fitted with steam-heating equipment, 1 had air-conditioning equipment fitted, and 6 had their bogies fitted with "Isothermos" axle-boxes. Five carriages had alterations made in their internal structure and one old ministerial car and one old vice-regal car were converted to second-class.

Thirty-seven carriages had the seating rearranged, chair-seats being installed in all cases. These changes eliminated longitudinal seats in 14 carriages.

BRAKE-VANS.

On 31st March, 1938, there were 477 brake-vans in service with 29 building. Three brake-vans were built in workshops during the year, six were written off, and 497 passed through the workshops, of which number 336 received heavy repairs.

There were 11 postal-vans in service at the close of the year, and six vans passed through the workshops during the year, five receiving a major overhaul.

WAGONS.

At the close of the year there were 27,235 wagons in service with 2,866 building. Seven hundred and thirty-six wagons were built in workshops and placed in service during the year, while 356 were written off. The new wagons placed in service include 600 LA general-utility wagons, 16 bogie and 40 four-wheel cattle-wagons, 32 platform wagons, 18 VB chilled beef and 10 W frozen-meat wagons, and 20 ballast wagons. Five petrol-tank wagons were built in workshops for private companies during the year.

The number of wagons that passed through the workshops was 21,467, and of these, 15,320 received heavy repairs.

RAIL CARS.

Ten rail cars were in service at 31st March, 1938, while one rail car (Clayton steam-propelled) was withdrawn from service and written off. Six 66 ft. standard double-bogied rail cars, each equipped with two 10-litre high-speed compression-ignition oil-engines were under construction in the workshops at the close of the year.

CRANES.

One coaling-grab crane and three 10-ton steam-cranes were imported from England during the year and placed in service.

TARPAULINS.

At the close of the year 24,138 tarpaulins were in service. Tarpaulins repaired in the workshops numbered 12,512, while 5,808 new tarpaulins were placed on issue.

TRANSPORTATION.

The train-mileage for the year (exclusive of shunting and departmental mileage) was 12,777,852, compared with 11,868,083 for the previous year, an increase of 909,769 train-miles. The passenger-miles run were 5,322,050, compared with 5,066,860, an increase of 255,190. The goods and mixed train-miles were 7,455,802, compared with 6,801,223 for the previous year, an increase of 654,579.