

between stations to ascertain the movements of special trains; provision of coal-siding and sanding-bin at Invercargill locomotive depot; alterations to transport office to accommodate train-control services, Christchurch; extension of office at locomotive depot, Linwood; equipment of frame levers instead of "goose-neck" levers at crossing-loops (part); reconstruction of No. 3 jetty, Lyttelton; provision of stores-accommodation Taihape; removal of station building from Thames to Thames South; close-sleeping bridges, Greymouth-Otira line; provision of electric pumping-plants for water-service at various stations; shifting portion of goods-shed, Paeroa, to Thames; extending ash-pit at engine depot, Helensville, additional siding-accommodation, Kumara, Middlemarch, Waipara, and Otira; improved coal-bin accommodation, Paeroa; provision of ladies' waiting-rooms, Waikanāe and Te Kawa; provision of stockyards at Auripo and Haywards; shifting goods-shed from Onerahi to Whangarei; providing parking-area for motor-cars, Aramoho; providing shed and extending siding for rail-tractor, Feilding; extending station accommodation, Edgecumbe; improvements and extension to loading-bank, Levels; extension of crossing-loop, Waianakarua; provision of additional latrine accommodation for goods staff, Dunedin; provision of additional wagon-traverser on wharf, Lyttelton; provision of septic tank for station conveniences, Palmerston; lengthening turntable, Waikari; providing cross-over, Grey River Collieries siding, Dobson; loading facilities for motor-cars, Arthur's Pass; enlarging concrete-pipe culvert under line near Waikaka; provision of sidings to serve new wharf, Invercargill; provision of increased engine-watering facilities, Putaruru; alterations to luggage and parcels accommodation, Thorndon; and shifting portion of station building from Ranganui to Kaipara Flats.

*Expenditure.*—The expenditure for the year was as follows: Maintenance (charged to working-expenses), £1,146,014; new works (charged to capital), £651,571.

The maintenance expenditure charged to working-expenses amounted to £347 per mile, as compared with £340 in 1928-29, £359 in 1927-28, £338 in 1926-27, £369 in 1925-26.

*Mileage.*—The mileage open for traffic on the 31st March, 1930, was 3,301 miles 55 chains. The Hutt Valley industrial line, 1 mile 59 chains, was opened for traffic during the year.

*Staff, Maintenance Branch.*—Working staff, 4,161; office staff, 181: total, 4,342.

#### LOCOMOTIVE.

Mr. E. T. L. SPIDEY, Superintendent of Workshops, reports for the Chief Mechanical Engineer as follows:—

The rolling-stock, machinery, and tools have been maintained in good working-order during the year.

*Locomotives.*—On the 31st March, 1930, there were 657 engines in service. During the year two Class G Garratt articulated locomotives, imported from Messrs. Beyer, Peacock, and Co., Manchester (one engine of this class had been assembled during the previous year, making a total of three), and one D Class Clayton steam shunting-locomotive, imported from the Clayton Wagons, Ltd., Lincoln, England, were assembled in the Government railway workshops. Also, four Class EB electric-battery shunting-locomotives, for use in the four main workshops, were built and assembled in the Government railway workshops. Sixteen engines were written off and one engine sold during the year.

There was a decrease of 54,630 lb. (equal to 0.489 per cent.) in the tractive power available. There were twenty-four Class C shunting-engines on order and under construction in the Government railway workshops.

During the year 579 engines were passed through the workshops, of which 240 received a thorough overhaul.

*Boilers.*—Four new boilers were built during the year, and an additional twenty new boilers were in hand at the close of the year.

*Carriages.*—On the 31st March, 1930, there were 1,588 cars. Ten suburban cars in the North Island and one inspection car in the South Island, built in the Government railway workshops, were added to the stock, and twenty old cars were written off, and one postal car converted to breakdown van.

Fifty-two new cars were in the course of construction in the workshops at the end of the year. This programme is well advanced, but owing to the late delivery of material from England, the completion has been retarded. During the year 1,987 cars were passed through the workshops, of which number, 1,459 received heavy repairs.

Two suburban cars were converted to lounge cars on the North Island main line and branches.

*Rail-cars.*—There were five rail-cars on the line on the 31st March, 1930.

*Brake-vans.*—On the 31st March, 1930, there were 473 brake-vans. Three bogie vans built in the Government railway workshops were added to the stock, and one postal car converted to breakdown van during the year. Nine old vans were written off, and two sold to other Government Departments. Twenty-four vans were on order at the end of the year. Altogether, 602 vans were passed through the workshops, of which 402 received heavy repairs.

*Wagons.*—On the 31st March, 1930, there were 26,909 wagons in stock. The additions during the year were 5 Class UG bogie horse-boxes and 40 Class ZP bogie covered goods-wagons, and 230 Class J four-wheel sheep-wagons and 124 Class LA four-wheel highside iron wagons built in the Government railway workshops. The following wagons were also added to the stock: 2 Class H cattle-wagons, 30 Class L highside wagons, 4 Class N timber-wagons, and 4 Class UB bogie platform wagons (purchased from the Public Works Department, East Coast Railway), 1 Class Pw petrol inspection-wagon (imported from Hardy Rail Motors, London), for inspection work at Otira Tunnel,