

Palmerston North Deviation.—During the year more labour and plant were engaged on this work, and considerable progress was made with earthworks and culverting. The formation for main line was completed to within 42 chains of the Main Trunk Railway. An overbridge was erected at Milson's Line, and improvements to the channel of the Mangaone Stream were carried out. Expenditure for the year, £99,905.

Tawa Flat Deviation.—Considerable progress has been made with the work during the year. Some 7 chains of sea-wall on the harbour reclamation and a total of 23 chains of heavy earthwork have been completed. Both portals of No. 1 tunnel and 12 chains of full-section tunnel were completed; 55 chains out of a total of 63 chains of bottom-heading work, 10 ft. by 8 ft., were completed. To enable tunnel-spoil to be easily disposed of an adit 12 chains in length was driven at Ngahauranga. In No. 2 tunnel both portals and 5 chains of full section of tunnel have been completed; 38 chains of bottom heading, 10 ft. by 8 ft., have been driven. At 5½-mile peg a 20 ft. by 8 ft. shaft was sunk to a depth of 130 ft., and from this point headings are being driven in both directions.

The double-track bridge over the Hutt Road has been practically completed with the exception of track-laying and painting.

The bridge over the Ngahauranga Gorge Road has been completed, also the piers of bridges at 6 m. 38 ch., 7 m. 28 ch., and 7 m. 51 ch.

Huts for the accommodation of workmen have been provided, and tunnelling equipment, consisting of air-compressors, &c., and electric locomotives, is now in use. Expenditure for year, £286,442.

Additions to Open Lines.—The expenditure under this account was £52,899, the principal works being: Additional siding accommodation at Motatau, Rotorua, Wanganui (part), Thorndon, Mangatainoka, Woburn, Riccarton (part), Glasnevin, Christchurch, Ranfurly, Wyndham (part), Otautau; provision of crossing-loop between Mangaiti and Tirohia; alterations to District Offices, Whangarei; turntables, Opuā and Oira; 12,000-gallon vat, Paekakariki; crushing plant, Mount Smart; new houses at Clinton, Middleton, and Romahapa (part); purchase of houses at Paekakariki and Woolston; loading-banks, Ngapara and Gore; overbridge at Tuakau; stock-yards, Tātuanui, Kopu (part), Mangaiti, and Greenhills; sewerage, Frankton; new station-buildings at Mataroa and Elmer Lane; additions, Tauranga Station building; additions to locomotive depot, Tauranga (part) and Taneatua (part); refreshment-rooms, Tauranga; veranda at Milton; flood-control, Taieri Plains (part); tarring Station Street, Timaru; sandhouse, Frankton Junction; land for locomotive depot, Frankton Junction; artesian well, Invercargill (part); extension of centre rail, Rewanui; land for rearrangement of yard, Milton; motor-garage, Hutt Shops (part); portable rock-drilling plant; bridge at 130 m., Puketutu (part); mechanical appliances for goods-sheds, Christchurch.

Betterments.—Expenditure charged to "Betterments" during the year was £23,991 8s. 4d., the principal works being: Provisions of additional siding-accommodation at Paeroa, Morrinsville, and Ngatira; alterations to sidings on No. 3 jetty, Lyttelton; improvements to bridges Nos. 148 and 150, North Auckland line (part); provision of additional stockyards; improvements to stockyards and improved stock-handling facilities at several stations; improvements to clearances in Round Hill Tunnel, Dunedin district; provision of office for Bridge Inspector at Te Aroha; additions to District Engineer's Office, Wellington; fitting up Central Booking-office at Auckland; conversion of general waiting-room into bookstall at Christchurch; paving Wharf Street, Dunedin; improved water-services at several stations; installation of coin-in-slot locks at a large number of stations; and equipment of frame levers in lieu of "goose-neck" levers at crossing-loops (part).

Expenditure.—The expenditure for the year was as follows: Maintenance (charged to working expenses), £1,111,229; new works (charged to capital), £910,063. The maintenance expenditure charged to working-expenses amounted to £340 per mile, as compared with £359 in 1927–28, £338 in 1926–27, £369 in 1925–26.

Mileage.—The mileage open for traffic on the 31st March, 1929, was 3,299 miles 76 chains. During the year 106 miles 39 chains additional lines were opened for traffic.

Staff, Maintenance Branch.—Working staff, 4,067; office staff, 179: total, 4,246.

LOCOMOTIVE.

Mr. G. S. LYNDE, M.I.Mech.E., M.I.Loco.E., Chief Mechanical Engineer, reports as follows:—

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

Locomotives.—On the 31st March, 1929, there were 667 engines in service. During the year one Class G Garratt articulated locomotive, imported from Messrs. Beyer, Peacock, and Co., Manchester, was assembled in the Government railway workshops, three Wf Class were built by Messrs. A. and G. Price, Ltd., Thames, and six electric locomotives were imported from United Kingdom for the Lyttelton-Christchurch service. Twenty-one engines were written off during the year.

There was a decrease of 65,804 lb. (equal to 0.586 per cent.) in the tractive power available.

There were, at the close of the year, two Class G articulated Garratt locomotives under erection in the Hutt Workshops. These two locomotives will be completed and put into service during May of the present year. There were twenty-four Class C shunting-engines on order to be built in the Government railway workshops.

During the year 662 engines were passed through the workshops, of which 153 received a thorough overhaul.

Boilers.—Six locomotive boilers were built during the year, and fourteen boilers were in hand at the close of the year.

Carriages.—On the 31st March, 1929, there were 1,598 cars. Ten suburban cars built in the Government railway workshops were added to the stock, and eighteen old cars were written off, and one postal car converted to brake-van. Twenty-seven cars were on order at the end of the year.