

Public Works Department Designed Plant.—The Department has designed and has had built in New Zealand a number of modern high-speed motor road-graders. These machines have now been in service for a sufficient period to judge their efficiency. To date they have proved conclusively to be highly efficient units both mechanically and in the work performed, under the worst possible New Zealand conditions. They compare more than favourably with similar imported units of foreign manufacture. As an illustration of the ability of these machines it can be quoted that they have scarified and graded roads that were originally constructed by the military authorities in the early days, these roads being laid down with heavy boulder undercourses, which, with an ordinary machine, would be impossible to deal with without other preparation to first remove the undercoursing. This ability is attributed to the excellence of the design. To date the New Zealand manufacturers have built and delivered five tandem-drive machines (six-wheelers), thirty-three single-drive machines (four-wheelers), and have still to produce fourteen single-drive machines, which will be delivered in due course. With these fourteen latter machines the power unit has been changed from a petrol-engine to a modern Diesel engine of British manufacture, which will prove a still more efficient power unit for this type of machine, and will effect a considerable saving in operating-costs. Several modifications of the original design were incorporated in the machines from time to time as the result of experience in operation, and the result is a credit to all concerned, including the New Zealand manufacturers, Messrs. A. and G. Price, of Thames.

The Department has also found that the standardization of grader-blades has enabled tenders to be called for the whole of the supplies required for the Dominion for all types and makes of road-graders, which results in a very considerable saving to the Department both financially and from the point that replacements are readily obtainable without loss of time.

Another interesting product of the Department is the ditching-machine employed at the Timaru Airport. This machine was designed by the Department, and is New-Zealand-built, and has proved to be highly efficient for the work required. Further developments along these lines in designing suitable machines for various works will receive the attention of the Department as occasion warrants.

Sales of Plant.—In keeping with the policy of purchasing new modern plant the Department is still continuing to dispose of worn-out and obsolete plant items by selling these by public tender. Plant items are withdrawn from service immediately their continued operation becomes uneconomic.

Local Bodies.—A considerable quantity of modern road and highway construction and maintenance plant has been obtained for local bodies on behalf of the Main Highways Board, and in all these cases the local bodies have benefited considerably by the Department's knowledge and experience of this modern plant in preparing the specifications (in this having due regard to the conditions under which the plant will be operating), analysing the tenders received, and making the necessary recommendations for the benefit of the local bodies. This phase of the work includes high-speed motor road-graders, tractors, and road-building equipment, quarry plant, and motor-vehicles. Local bodies generally are appreciating the fact of the Department giving recommendations covering the purchase of this plant.

Motor-vehicle Operations.—The general increase in the scope and field of the Department's undertakings throughout New Zealand in the period under review has necessitated a further increase in the motor-vehicle fleet to ensure that the necessary supervision of the large number of scattered activities in the various districts can be adequately carried out. Where necessary suitable economic light transport trucks are provided. Recently the Department took over the fleet of motor-vehicles, including sixteen motor-cars, operated by the Southland Power Board. The appointment of additional Main Highways Traffic Inspectors, requiring thirty-two new motor-cars, has also increased the total motor-vehicles under the Department's control.

The following statements outline the operations of the Public Works and Main Highways Board motor-vehicle fleet for the year :—

Table 1.

	Motor-vehicles.			
	At 1st July, 1936.	Sold.	Purchased.	At 30th June, 1937.
Cars	154	14	76	216
Light deliveries	131	16	115	230
Trucks 30 cwt. and over	79	8	41	112
	364	38	232	558

OPERATING-COSTS FOR YEAR.

The costs shown include—

Receiving Charges : Petrol, oil, grease, tires, tubes, repairs, and maintenance :

Standing Charges : Interest at 5 per cent. per annum and depreciation ranging from a minimum of 20 per cent. to a maximum of 40 per cent. per annum on capital cost, this variation being governed by the type and mechanical condition of each vehicle and the conditions under which it operates ; garage rent, 5s. per week ; registration and annual license fees.