

A number of the machines are of modern type, but there is also a certain proportion considerably out-of-date.

It was observed in the pattern-shop that the patterns are arranged in compartments in a satisfactory manner. The accommodation here appears to be ample for requirements. An automatic gauge is installed in the wheel-press shed, all wheel-presses being recorded in a journal set apart for the purpose. The erecting-shop is very much congested, and the centre road, which should be set apart as a run-out, is being used for carrying out repairs. The foundry supplies all castings required for Petone, as also for East Town repair shops, and for all locomotive-running depots as far north as Taumarunui. This shop is also much congested.

In addition to boiler repairs, carriage and wagon steel underframes are being built in the boiler-shop, which entails considerable difficulty in dealing satisfactorily with the work. New fireboxes are manufactured at Petone, but no new boilers. The blacksmiths' shop has sufficient accommodation to meet present requirements. It was ascertained that very few broken springs come to the shop for repairs. The carriage-repair shop appears to be crowded, and it was noticed that, in addition to carriage repairs, the building of new carriages and wagons was being carried on. The machinery in the sawmill is out-of-date, and the accommodation provided is insufficient for the work offering. The accommodation in the paint-shop is also inadequate, and this applies to the carriage and wagon lifting shop, where the work is being carried out under very great difficulties.

NAPIER SHOP.—The majority of the machinery in the erecting, machine, carpenters' and blacksmiths' shops at Napier is out-of-date, and generally the shops appear overcrowded. Owing to lack of accommodation, practically all the wagon repairs and a certain portion of carriage repairs are being dealt with in the open yard. If circumstances justified, it might be possible to roof in a portion of the yard where the wagon repairs are carried out, in order to ensure their being dealt with under cover. With up-to-date machinery it is considered that a certain amount could be done in the direction of expediting the output of work—*e.g.*, the provision of electric cranes when power is available, modern milling and drilling machines, and capstan lathes. It is doubtful whether it is necessary to continue the use of these works, as there should be ample accommodation elsewhere to deal with repairs in the North Island.

EAST TOWN WORKS.—The erecting-shop at East Town has two roads, and is equipped with two 20-ton overhead hand-operated travelling-cranes. The shop is congested, and, in addition, one portion has to be used as a tool-shop. The carriage-shop has three short roads, and the accommodation is totally insufficient to meet the demands made upon it, necessitating the bulk of the repairs to both carriages and wagons being dealt with in the open. This shop is provided with a few obsolete types of woodworking-machines, which are inadequate for the work required, but, having regard to the smallness of the shop, there is no room for additional machinery.

The machine-shop is provided with a miscellaneous assortment of out-of-date machines, and there is not enough room to deal with the work satisfactorily, the finishing-bench being mixed up with the machines. The lifting-shop is an open-sided building, is badly lighted, and is totally inadequate and unsuitable. The blacksmiths' shop appears to meet present requirements, and it is understood that a new steam-hammer is on order. The tarpaulin-shop is adequately fitted with machines, but the accommodation is limited; while the paint-shop would appear to meet present needs.

Generally speaking, the shops at East Town are out-of-date and entirely unsuitable for carrying out work in an efficient manner. Most of the machinery is old-fashioned and inadequate, and this must be reflected in maintenance costs.

NEWMARKET WORKS.—The erecting-shop consists of three roads, the centre road, although intended as a run-out, having to be utilized for engine repairs owing to the very congested state of the shop. Necessarily, therefore, when an engine is ready to be taken out of the shop the centre road has to be cleared.

The existing lifting-appliances consist of two 20-ton cranes, operated by hand, and are exceptionally slow of movement both for travelling and lifting. These, however, will shortly be replaced by electric cranes. Owing to there not being