

The 75 ft. sea-going tugs are of all-welded variety, 75 ft. 9 in. in length, 18 ft. moulded breadth, 9 ft. 11 in. depth, and engined with a single Diesel unit of 300 h.p. They are of the "hard chine" design, which, of course, lends itself to an all-welded construction.

In the construction of these vessels a difficulty was experienced in obtaining a sufficient number of welders, but even this difficulty was overcome by the institution of a training school. After three or four weeks' tuition under an expert welder, trainees were then passed out for welding on the vessels, their work being carefully supervised by a thoroughly competent welder. The prefabrication of these vessels was a masterpiece, in that the hull was divided into three parts—the bow portion, the middle, and the stern. It was interesting during construction to see the bow portion being transported by road from the Railway Workshops at Otahuhu round about daylight so that interference with traffic would be at a minimum. These units were sea-going and, indeed, had some interesting trips across the Tasman under heavy weather, but have been most favourably commented on by all parties concerned.

The 114 ft. powered lighters are a misnomer as far as New Zealand is concerned, in that they are virtually small cargo-vessels of 200 tons to 250 tons carrying-capacity. They are 114 ft. 6 in. in length, with a breadth of 24 ft. and moulded depth of 11 ft. They are twin-engined, each unit of 208 b.h.p. Diesel. There is accommodation on board for nine officers and men, and the hull has four watertight bulkheads. Ten or so of these vessels were completed and sailed to the Pacific, being also very favourably commented on by every person concerned. When the war ceased, the balance of the American programme was cancelled, but four of these units were so near completion that it was decided to complete them for service on the New Zealand coast, where they should prove hardy little transports for coastal traffic.

In addition to the American shipbuilding programme at Auckland, the Government shipyard at Port Chalmers, under the control of Stevenson and Cook Engineering Co., Ltd., also constructed two powered lighters, one of which proceeded to the Pacific and the other is now lying in an almost completed state afloat in the port.

The other items in the American programme, although small in monetary value, have their particular significance. The 140 wooden barges were constructed by a syndicate of coachbuilding firms in Christchurch and by Messrs. Love Construction Co. at Dunedin. When this order was received from the Americans it was imperative that firms outside the usual run of boatbuilding should participate in their construction. To the coachbuilders of Christchurch and to the building tradesmen of Dunedin a tribute should be paid for their expedition of work and efficiency. The wooden wherries are what are known to us as dinghies and were constructed in Auckland as a side-line by the boatbuilding firms.

The American authorities also required 100 amphibian steel trailers. These are non-propelled and were constructed by the coachbuilding firms in Auckland and Christchurch. These also were required at very short notice and the operatives did a very good job of work.

It would be fitting at this stage to pay a tribute to the operatives all over New Zealand who participated in any way in either the New Zealand Navy or American programmes of shipbuilding. Those who were skilled readily imparted their knowledge to the unskilled. What might be termed "diluted" labour was used extensively; for instance, in Auckland hundreds of housebuilding carpenters were transferred to shipwrighting—an entirely different trade—and within a few months had become expert in their new industry. When the war finished, these men went back to their former occupations possessed with a thought that they had performed a splendid war work on ship-construction. Mention should also be made of the splendid work performed by the executive officers of the various engineering and shipwrighting firms. They are too numerous to mention individually, but all performed splendidly under difficult circumstances.