## "New Zealand Pilot."

The revision of this publication, last issued in 1919, was completed during the year and published in December last by the Hydrographer to the Admiralty. This revised edition should be of great value to mariners. Copies are on sale at the Government shipping offices at the main ports.

## Survey of Ships.

The following table shows the number of certificates of survey issued to ships during the year, the figures for the previous year being shown in parentheses.

| | Number. | |
|---|---|---|
| Sea-going steamships and motor-vessels .. .. .. .. | 153 | (186) |
| Sea-going sailing-vessels .. .. .. .. .. | 5 | (12) |
| Restricted-limits steamships and motor-vessels .. .. .. | 401 | (442) |
| | 559 | (640) |

The returns show a reduction of eighty-one in the number of surveys for certificates, compared with the previous year. Eighteen vessels were surveyed for the first time, of which four were sea-going vessels and fourteen were restricted-limits vessels. One of the sea-going vessels, the m.v. "Tiri" is a new cargo-vessel built of wood at the yard of Mr. G. T. Niccol, Auckland. Her gross and registered tonnage are 169 and 62·6 respectively, and she is propelled by a single set of imported Diesel engines of 210 brake horse-power. After one trip, foreign, to Norfolk Island, the vessel has been engaged in the coastal trade. Another of the sea-going vessels surveyed for the first time is the "Holmglen," formerly the "Argus," a steel cargo motor-vessel built in Germany in 1928. On arrival in New Zealand alterations were carried out to suit local conditions, and she is now engaged in the coastal trade.

Two hundred and twenty-eight vessels were surveyed for seaworthiness and efficiency under section 226 of the Shipping and Seamen Act. There were also twenty-nine other surveys made, making a total of 257 surveys carried out in addition to the usual annual surveys, as against a total number of 245 additional surveys in the previous year. Of the seaworthiness surveys the most extensive was the survey of damage and repairs to the m.v. "Hauraki," which stranded when berthing at New Plymouth in February, 1931, and floated under her own power on a rising tide an hour after stranding. The hull was pierced forward under the tanks, but as the tank tops were undamaged, the vessel was able to proceed to Auckland for dry-docking and repairs. The repairs included the renewal of a large amount of hull plating, and internal structure in tanks, and the removal, fairing, and replacing of several hull plates. The vessel was in dry-dock for a period of over ten weeks. Another important seaworthiness survey was in connection with the s.s. "City of Kimberley," which lost her propeller and a portion of the tail-shaft in the Pacific Ocean on passage from Panama to Auckland. The vessel was towed to Auckland, a distance of over 1,300 miles, by the m.v. "Opawa," and when surveyed in port, in addition to the loss of the propeller and a part of the tail-shaft, it was found that the main-engine crank-shaft was damaged and the stern tube fractured. The owners decided to import a new tail-shaft, propeller, stern tube, and M.P. crank-shaft from England and the vessel was in port two and a half months waiting the arrival of these parts.

During the year several cases of broken tail-shafts of small vessels engaged in coastal service were reported. There were no less than nine failures altogether. The cause of failure in each case, with the exception of one which resulted finally in the loss of the vessel, was carefully investigated. Material from three of the shafts for which the causes of failure were not clear, was sent to the School of Engineering, Canterbury College, for mechanical tests and laboratory examination, and the result of the tests showed that one failure was due to hidden corrosion cracking under the liner caused primarily by galvanic action between the different metals of the shaft and the liner, and the other two were considered to have been due to the use of material of inferior quality. The Department's requirements are that material for shafting shall be of suitable quality verified by mechanical tests of a sample of the material.

The new regulations relating to the survey of steel cargo-vessels have been in operation since the 1st October, 1931, and are giving satisfaction to the Department and shipowners.

A departmental circular relating to equipment of fire-extinguishing appliances on board all classes of vessels was published in pamphlet form in August, 1931, and copies were made available for purchase by the public. The whole question of the proper provision of fire-extinction appliances was considered and the requirements as to the best means of dealing with fires on board ship were embodied in the circular. The requirements for passenger steamships and oil-launches were based on Imperial Board of Trade Instructions and those for cargo-steamers on the recommendations of the Merchant Shipping Advisory Committee, London, modified in some cases to suit local conditions.

In addition to adequate arrangements for a supply of water, a number of chemical-fluid fire-extinguishers is required in all vessels. Where oil is used for generating steam or power a system of froth or foam appliances is required, this agent being proved to be the best available means for dealing with oil fires.

When the circular was issued there was some difficulty in obtaining supplies of suitable chemical extinguishers, of makes approved by the Department, but stocks are now plentiful in the Dominion.

It is interesting to note that a Christchurch firm has for some months past manufactured portable chemical extinguishers which have been tested and accepted by the Department for use on board ship.