

During the year examinations were held in Auckland and Wellington on scheduled dates, and in Wellington on many other dates, to meet the convenience of candidates who, under present emergency conditions, were unable to present themselves on the due dates.

One hundred and thirty-one candidates presented themselves for examination, this being a decrease of 41·8 per cent. on the number last year. Thirty-two yachtsmen passed for a certificate as "Master of a Pleasure Yacht in New Zealand Waters" with the intention of joining the Royal Naval Volunteer Reserve.

The fortieth edition of the "New Zealand Nautical Almanac and Tide Tables" was published on the due date.

Present conditions obviously call for the publication of many Notices to Mariners calling attention to dangers to navigation, improved or modified navigational aids, and general information for the use of mariners.

The services to shipping by our shipping offices in the various localities have been maintained at a high level, including the provision of seamen to fill vacancies and the proper administration of the regulations for sick and injured seamen under the provisions of the Shipping and Seamen Act, 1911.

SURVEY OF SHIPS.

Survey certificates were issued during the year for 26 foreign-going steamships, 12 motor-ships, 1 sailing-ship, 31 home-trade steamships, 73 home-trade motor-ships, 40 restricted-limits steamships, and 267 restricted-limits motor-ships and launches, the total certificates issued being 450, as against 477 for the previous year.

The single sailing-ship certificated during the year was the barque "Pamir," formerly owned in Finland and taken over by the New Zealand Government as a prize on her arrival at Wellington in July, 1941. She is a four-masted barque—that is, square rigged on three of her four masts—and is of 2,799 tons gross and 2,365 tons register. She was completely surveyed and refitted, including the installation of wireless and improvement of crew's accommodation, before proceeding on normal service.

Five restricted-limits vessels were surveyed for the first time. In addition to the annual surveys for certificates, 229 seaworthiness, efficiency, tonnage, and other surveys were made during the year. Thirty-five of these surveys were made to overseas ships not registered or normally surveyed in the Dominion.

INSPECTION OF MACHINERY.

Boilers.

The following statement shows the number of inspections of fired boilers, unfired pressure-vessels, and air-receivers made during the year, with the corresponding figures for the previous year shown in parentheses :—

Fired boilers	..	..	..	..	..	4,641	(4,553)
Unfired steam-pressure vessels	..	..	..	..	..	4,705	(4,329)
Air-receivers	..	..	..	..	..	3,025	(2,127)
Total inspections	..	..	..	..	..	12,371	(11,009)

The inspections include 89 new power-boilers, aggregating 2,043 horse-power, manufactured in the Dominion, and 18 new power-boilers, aggregating 86 horse-power, imported from abroad. They also include 472 new steam-pressure vessels and 100 new air-receivers, of which numbers, 195 steam-pressure vessels and 42 air-receivers were imported.

An explosion from a steam-pressure vessel was reported during the year. This was from a cast-iron steam-press used in a large woollen-factory in Otago. The machine was twenty-nine years old, and the failure at normal working-pressure was due to the breakdown of internal stays. Complete destruction occurred, but fortunately no one was injured. Among boiler defects reported were two cases of typical lap-seam cracks in the longitudinal lap-seams of power-boilers. One case occurred in the steam and water drum of a fairly large water-tube boiler used in a dairy-factory at Waikato. The drum was renewed. The other case occurred in the outer fire-box plate of a small locomotive boiler used in a coal-mine in Westland. The defective plate was cut out well beyond the lap-seam and a new plate fitted with butt joints and double straps.

Machinery.

The following statement shows the number of inspections of machines, machinery plants, lifts, cranes, hoists, and tractors made during the year, with the corresponding figures for the previous year shown in parentheses :—

Machines not driven by steam-power in 11,227 (10,920) plants	81,323	(76,406)
Machines driven by steam-power in 1,983 (2,036) plants	10,074	(10,211)
Electric-power-supply stations	138	(151)
Lifts	3,642	(3,323)
Cranes	525	(500)
Hoists	1,691	(1,618)
Tractors	389	(371)
Total machinery inspections	97,782	(92,580)

Included in the inspections are forty-one lifts and fifty power-cranes inspected for the first time.