

The regulations allow a more flexible survey in regard to time and place than the annual survey of Part IV of the Act. A portion of a survey may be made abroad by the classification society, and on the whole it is considered that the regulations will provide for minimum delay which, during the present shortage of tonnage, is to be desired.

Further attention has been given during the year to the development of additional precautionary and life-saving measures for the protection of seamen and ships. The provisions follow closely those of the Ministry of War Transport, London. Arrangements were made by the Ministry at the outbreak of hostilities to obtain all possible information regarding casualties resulting from enemy action, and a close study of this information has been made to ascertain in what respect peacetime safety arrangements and equipment were insufficient for war conditions. By this means problems of safety in ships, due to war conditions, have been considered as they have arisen, and measures have been developed to cope with them.

Careful consideration has been given to ships which proceed overseas. Every seaman in this class of ship is now provided with a protective suit made of tough, light, rubberized material specially manufactured for the purpose. It is intended for use in a lifeboat or on a raft and will keep the wearer dry and warm in the most adverse conditions. All lifeboats are provided with a set of charts, a protractor, pencil, rubber, and paper in a waterproof wallet. The charts cover the navigable globe and give much useful information and guidance, including simple hints on navigation. All overseas ships are now equipped with portable wireless transmitting and receiving apparatus for use in lifeboats. One lifeboat on each side of the ship is rigged with a topmast and aerial for transmission purposes, and the wireless apparatus is stored in a convenient place on deck from where it can be readily transferred to a boat if the ship must be abandoned. Both transmitter and receiver are packed in handy watertight cases, which will float if they must be dropped overboard when being transferred to a boat. The transmitter will send distress signals automatically. The receiver may be used as an aid to navigation by taking bearings. The portable wireless apparatus may also be used on board if all the ship's apparatus is put out of action. Portable petrol-driven power-pumps have been placed on board foreign-going ships. They are intended for use when the ship's normal fire-fighting water service is put out of action. This type of pump was effectively used recently for saving a ship in New Zealand waters when a fire in the engine-room stopped the use of the ordinary fire-pumps. Portable electric drilling-machines for drilling holes in decks and bulkheads to provide means of access to fires are being distributed to overseas ships. Orders placed in the United Kingdom for additional life-saving equipment include motor-engines for lifeboats and hand distress rockets for lifeboats and rafts.

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	..	..	..	..	..	4,600	(4,363)
Unfired steam-pressure vessels	..	..	..	..	..	6,319	(5,363)
Air receivers	..	..	..	..	..	3,228	(2,762)
Total inspections	..	..	..	..	..	14,147	(12,488)

The inspections include 112 new power-boilers, aggregating 3,950 horse-power, manufactured in the Dominion, and 23 new power-boilers, aggregating 1,059 horse-power, imported from abroad. They also include 798 new steam-pressure vessels and 47 new air-receivers manufactured in the Dominion and 46 new steam-pressure vessels and 8 new air-receivers imported from overseas.

Machinery

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

Machines not driven by steam-power in 10,815 (10,392) plants	..	82,760	(77,752)
Machines driven by steam-power in 1,825 (1,777) plants	..	9,595	(9,322)
Electric-supply stations	..	109	(102)
Lifts	..	3,470	(3,364)
Cranes	..	545	(539)
Hoists	..	1,768	(1,675)
Tractors	..	353	(359)
Total machinery inspections	..	98,600	(93,113)

The number of machinery inspections made during the year shows an increase of 5,487 inspections over the previous year. Included in the inspections are 32 lifts and 30 power-cranes inspected for the first time.

The number of accidents reported during the year in connection with boilers, cranes, lifts, hoists, and general machinery inspected by the Department was 124, of which 6 were fatal and 118 non-fatal. These figures compare with 9 fatal and 138 non-fatal accidents reported during the previous year. The cause and circumstances of every accident were fully investigated by the District Inspector of Machinery as soon as possible after the accident occurred and all practicable steps taken to eliminate hazards and to introduce new safeguards or improve the existing safeguards of the machine or plant concerned. The safeguards of similar machines were also looked into and improvements made where possible.