

run with pressures granted by that body in Great Britain. There is a difference in the scantlings of some part of the boilers built under Lloyd's rules and those built under the Board of Trade rules. It was eventually decided to permit the cargo-vessels having boiler certificates from Lloyd's Registry to retain their pressures.

A large number of vessels ran successful excursions, and without mishap, throughout the year, and nearly all the intercolonial steamers throughout the summer months had extra passenger accommodation fitted.

Return No. 15 gives the total number of steamers and of auxiliary-powered vessels surveyed by the Surveyors of the Department during the year. It also gives their names and registered tonnage, the nominal horse-power and indicated horse-power of steam-vessels, the brake horse-power of auxiliary-powered vessels, and the nature of machinery and propeller.

*S.s. "Arapawa."*—This new steel vessel was surveyed for the first time this year. Her principal dimensions are 120 ft. 6 in. by 22 ft. 1½ in. by 8 ft. 7½ in.; tonnage, gross 291·23, registered 128·37. Her machinery is of the triple-expansion type, with cylinder-diameters of 11 in., 18 in., and 31 in., and a stroke of 22 in. She was built for Wellington owners.

*S.s. "Mararoa."*—This vessel had 528 new common and 44 new stay-tubes fitted to her main boilers. Other portions of her main boilers were repaired also, 578 sq. ft. of new plating fitted, and several new stiffening-angles fitted to bunkers. A new thrust-shaft was fitted to main engines; a sheathing-plate by ash-shoot exhaust was fitted to the vessel's hull, and all sea-cocks were thoroughly examined.

*S.s. "Mokoia."*—This vessel had several plates and angles renewed close to the galley, and one plate in ship's side; one length of main steam-piping repaired, and tested by hydraulic pressure; and eighteen stays renewed in main boilers. All the rivets in the rudder were renewed, and three new pintles and bushes fitted. All the deck equipments received a very complete overhaul.

*S.s. "Maheno."*—This vessel was laid up for a long time to effect repairs to the high-pressure turbine engine. About 23,000 new blades were fitted to this engine, and a general overhaul was given to the other part of the vessel's machinery, including all auxiliary engines. The main steam-piping was tested by hydraulic pressure, and the three propeller-shafts were withdrawn for survey.

*S.s. "Gosford."*—This wooden vessel received a very extensive overhaul to hull and machinery, including a new stem. The hull below the water-line was sheathed throughout with totara, extensive repairs to the rudder were made, new crank-shaft for main engines was fitted, and general repairs to main boiler were effected.

*S.s. "Goshawk."*—This is a new wooden ferry-steamer built for the Devonport ferry service in Auckland. The vessel's principal dimensions are 120 ft. by 32 ft. by 10 ft.; tonnage, gross 238·7, register 121·94. The engines are of the compound type, having cylinders of 13 in. and 26 in. diameter, with stroke of 18 in. This vessel can carry 947 passengers in Auckland Harbour.

*S.s. "Jane Douglas."*—This vessel has been practically rebuilt. A great number of new plates were fitted to the hull, and several sheathed. A number of the reverse frames and floor-plates throughout the ship were renewed. The intercostal plates in engine-room were renewed, and extensive repairs made to the bulkheads. Gusset plates in the chain-locker and new decks were provided. The compound engines, with all fittings, and the old boiler were removed, and a new set of triple-expansion engines and a new boiler fitted.

*S.s. "Kapui."*—This vessel had her own machinery removed, and replaced by the machinery taken out of the *s.s. "Fingal."* All the main and auxiliary steam-pipes were tested, and a new propeller-shaft fitted.

*S.s. "Kiritona"* (twin-screw, auxiliary-powered).—This is the first survey of this vessel, which has been built of wood, in Auckland, for the New Zealand Shipping Company for cargo purposes at Napier. The principal dimensions of the vessel are 87 ft. by 24 ft. by 8 ft. 9 in.; tonnage, gross 136·49, register 75·26. The machinery consists of two sets of oil-engines, each engine being of 75 brake horse-power.

*S.s. "Kurov."*—This new steamer was surveyed for the first time this year. Her principal dimensions are 315 ft. by 44·6 ft. by 20·6 ft.; tonnage, gross 2,580·97, register 1,564·2. Her machinery is of the triple-expansion type, with cylinder-diameters of 22½ in., 38 in., and 62 in., with a stroke of 42 in. This vessel is used for cargo purposes.

*S.s. "Loyalty."*—This vessel has had the old boiler removed and a new one fitted. The new boiler was made in New Zealand. The vessel generally had a thorough overhaul to hull and machinery.

*S.s. "Mana."*—This vessel had a new boiler fitted on board, and a big overhaul to her machinery. The hull and ship's frames and floor-plates were thoroughly surveyed, and a number of renewals of parts made. The coal-bunkers were practically renewed. The new main steam-pipes were tested by hydraulic pressure, and the propeller-shaft drawn for examination.

*S.s. "Monica."*—This new vessel was built of wood, in Auckland, for Lyttelton owners. The principal dimensions of the vessel are 77 ft. by 16 ft. by 7 ft., tonnage, gross 61·84, register 29·45. The machinery is of the compound type, having cylinders of 7½ in. and 16 in. in diameter, and a stroke of 9 in. This vessel can carry a total of 276 passengers in smooth water in Lyttelton Harbour.

*S.s. "Ngapuhi."*—This vessel's main boiler was removed, and a new one was fitted on board. A number of necessary repairs were made to keelsons and reverse frames of hull, and all the defective plating of bunkers was renewed. Several deck-angles around casing by funnel were renewed, and one propeller-shaft drawn for survey and inspection.

*P.s. "Osprey."*—This vessel had a fairly extensive overhaul to her paddle-wheels and rudders, and ten of the angle-iron brackets under sponsons were renewed. Several necessary repairs were effected to main engines.