

*S.s. "Orewa."*—This vessel received a good overhaul to her engines, boiler, and hull. A new kauri keel was fitted. The deck in the starboard alley-way and the deck-plating were renewed. The sternpost was cut out and a new one of hardwood fitted.

*P.s. "Osprey."*—This vessel was laid up for a thorough overhaul. New outer rims, seven new arms, and new floats were fitted to both paddle-wheels. An entire new bottom was put in the hull from port to starboard turn of bilge, and all intercostals, angles, and reverse frames were renewed where required.

*S.s. "Onewa."*—This is a new vessel, surveyed for the first time this year, and was built, as were her engines and boilers, in Auckland. Her dimensions are 76 ft. by 18.6 ft. by 5.3 ft. Tonnage—Gross, 74; net, 31. Engines—Cylinder-diameters 10 in. and 19 in. by 10 in. stroke; working boiler-pressure, 130 lb. per square inch.

*Dredge "Paritutu."*—This twin-screw dredger, which was built in Paisley for the New Plymouth Harbour Board, was surveyed for the first time this year. The dredger is of the stern-well type, and, in addition to the buckets for lifting clay, is fitted with a powerful suction-pump for raising sand. Her dimensions are 180 ft. by 34.15 ft. by 13 ft. The tonnage is 564 gross, and 233 net. The propelling machinery consists of two sets of triple-expansion surface-condensing engines with cylinder-diameters of 11 in., 18 in., and 30 in. by 22 in. stroke, supplied with steam from two Scotch multitubular boilers, 14 ft. 9 in. diameter by 10 ft. long, working at a pressure of 160 lb. per square inch.

*S.s. "Taviuni."*—A new rudder and rudder-post were fitted to this vessel at last survey. The main hatches in the main 'tween-decks were made 8 ft. longer. The after deck-house was removed and the main deck closed in. The machinery and boilers were also overhauled. This vessel had been ashore at Westport for a long time.

*S.s. "Te Pioneer."*—This wooden vessel, of which the plans and specifications were submitted to the Department before the construction of the vessel had begun, was built at Aratapu, for the Kaipara Harbour trade. Her dimensions are 65 ft. by 14 ft. by 6 ft. 5 in., and her tonnage 36 gross and 25 register. The propelling machinery was made in Auckland, and consists of one set of compound engines, with cylinders 8 in. and 16 in. diameters, with a stroke of 9 in., supplied with steam at a working-pressure of 140 lb. per square inch. A multitubular marine boiler, 6 ft. 5 in. diameter and 7 ft. 3 in. long, supplies the steam for the engines.

*S.s. "Te Whaka."*—This single-screw hopper dredge was built in Port Glasgow for the Lyttelton Harbour Board, and surveyed for the first time this year. The vessel has a capacity of 350 tons per hour. Her principal dimensions are 120 ft. by 20.15 ft. by 12.55 ft.; her gross tonnage is 324, and the register tonnage 140. The engines are of the compound surface-condensing type, cylinder-diameters 16½ in. and 33 in., stroke 21 in. Steam is obtained from a Scotch multitubular boiler, having 973 square feet of heating-surface.

*T.S.s. "Waireka."*—This vessel, built in Dunedin, and surveyed during construction last year, is of steel, and is owned by the Peninsula Ferry Company, at Dunedin. Her dimensions are 112 ft. long by 20.5 ft. beam by 7.25 ft. moulded depth. The tonnage is 149 gross and 72 register. The propelling machinery consists of two sets of triple-expansion surface-condensing engines, with cylinder-diameters 7¼ in., 11½ in., and 19 in., with a stroke of 10 in., indicating 240 h.p. Steam is supplied at a pressure of 190 lb. per square inch from a boiler of unusual type, a combination of the loco. and multitubular types, with a heating-surface of 895 square feet. The accommodation for passengers is on the main deck and promenade deck, the number which may be carried in smooth water being 771.

*P.s. "Wakateru."*—This vessel had an extensive overhaul to her hull, engines, and boilers. The forward sponson of the port paddle-wheel was renewed, forty-eight new tubes were put in the main boiler, and several patches caulked. The h.p. valve-chamber was bored out, new rings fitted to the piston-valve, and several minor repairs effected.

*T.S.s. "Waverley."*—This vessel was laid up for an extensive overhaul. A new boiler, 8 ft. diameter by 8 ft. 6 in. long, having a heating-surface of 506 square feet, was fitted. Thirty feet of doubling-plate was fitted on the centre keel-plate, and two defective plates on the side of the bridge were renewed. New bunkers on both sides were fitted. The bridge-deck was partly renewed with kauri planking, and the alley-way and poop-decks relaid. The engine-cylinders were bored out, and new pistons fitted. New h.p. piston-valves, crank-brasses, air and circulating pump rods and buckets were fitted.

#### SURVEYS OF SHIPS FOR SEAWORTHINESS.

Quite a number of special surveys of steamships were made during the year. The reasons for making these surveys will be seen on Return No. 16, which gives full particulars in each case. The repairs in some instances took several weeks to complete. The following were amongst the most important of these surveys:—

*S.s. "Kaipara."*—This vessel struck a rock in Rangitoto Channel when leaving Auckland. She sank in the channel, was refloated, docked, and repaired at Auckland. The repairs involved an extensive overhaul of the hull, plating, and frames.

*S.s. "Indradevi."*—The damage in this case was caused through a fire breaking out in the fore 'tween-decks, which spread to the fore-castle. This necessitated the renewal of the fittings in the fore-castle, repairs to the deck-beams, to the deck, and to the deck-plating.

Some of the causes for these surveys include collisions, defective main steam-pipes, strandings, loose propellers, propeller-blades stripped off, broken shafts, fires, defects to pumps and to valve-spindles of engines, and defects in hull, such as loose rivets, and damaged rudders.

A total of thirty-eight surveys were made. The fees for these surveys amounted to £106.