7 H.-15a.

board side were removed for examination of the timbers. A new false keel and five chain-plates and

fastenings were fitted.

S.s. "Moana."—On the starboard side of the hull a patch 15 in. by 12 in. by  $\frac{1}{2}$  in. was fitted in the way of the engine-room bilges. In the bilges under port boiler, four floor-plates and one intercostal plate were sheathed. Two new 1/2 in angles were fitted to keelson, one 4 ft. by 4 in. by 4 in. and one 6 ft. 5 in. by  $3\frac{1}{2}$  in. by 3 in. Two  $3\frac{1}{2}$  in. by  $3\frac{1}{2}$  in. by  $\frac{1}{2}$  in. angles, 4 ft. long, were fitted under one of the boiler-seats, and a patch 15 in. by 12 in. by  $\frac{2}{3}$  in. over the margin-plate on the forward starboard side of No. 1 tank. All tanks were tested to the deck-level. New piston-rods were fitted to H.P. and M.P. cylinders, and a number of tubes in the condenser were renewed. New wood was fitted to the stern-bush, a new feather was fitted into the tail-shaft, and the propeller-boss was refitted. All the plain tubes and seventy-two defective combustion-chamber stays were renewed in the main boilers, and the four centre furnaces were patched on the bottoms. New guys were fitted to the funnel, and the sides of the

crane-girder of No. 1 cargo gear were renewed.

S.s. "Ohinemuri."—The repairs to the inside of this vessel's hull were: New platform to the floor of the hold, thoroughly fastened by bolts and nuts. Five new angle-iron knees for stiffening on the starboard side, and two on port bow were fitted. Two new 27 ft. stringers were fitted on starboard side, 12 in. by 3 in., and one on the port side, all being well fastened. The main-hatch beam was stiffened by angle-irons. To hull outside: Two new planks in port bow and new false keel were fitted. A new metal shoe was fitted under the forefoot. The sheathing was stripped, and the bottom on both sides caulked and recoppered. A new rudder was fitted, and the rudder-post braces refastened. To the main engines a new H.P. piston-rod was fitted. The tail-shaft was drawn for examination, and a new propeller-nut and three new studs in propeller-boss fitted. To the main boiler: New springs were fitted to safety-valves, and 18 ft. of the funnel was renewed. A new crank-shaft, two slide-valve

casing-covers, new barrel, and driving-pinions were fitted to the steam-winch.

P.s. "Osprey."—At the docking of the vessel a new stem was fitted, and two new plates were put on each side of stem. Repairs were made to the forward rudder. One plate was fitted on each side of the forward bulwarks, and one plate amidships on the starboard side of bulwarks. The bracket from the ship's side to the starboard sponson was repaired, and the rudder-pin for each rudder renewed. Several of the paddle floats and brackets were repaired. In the main boiler all the ordinary tubes and one stay-tube were renewed. A riveted patch, 22 in. by 18 in. by  $\frac{3}{8}$  in., was fitted in the starboard combustion-chamber.

Dredge "Progress."—The main boiler was lifted out of this vessel, and the bottoms of both combustion-chambers were cut out and renewed. A new shell-plate was put on the bottom of boiler, The boiler was afterwards tested by hydraulic pressure to one and the starboard furnace was patched. and a half times the working-pressure. A new bush was fitted in the stern tube. All the main and

auxiliary machinery received a general overhaul.

S.s. "Putiki."—At the annual survey the most important repairs were to the forward and after tanks, which required strengthening. To the after tank longitudinal plates and angles were fitted between the top of the floors and the tank-top, one on each side. To the forward tank six new frames, six new floor-plates, new reverse bars, and two new longitudinal plates between floors and top of tank were fitted. Three new angle-bars were riveted the full width of tank, twelve new gussets to framing, and vertical plates were fitted. The keelson and sister keelsons were re-riveted to reverse bars. 150 rivets were renewed in the bottom of hull aft. The number of passengers formerly allowed has been reduced owing to some of the accommodation having been done away with. Various repairs were made to the engines, the steering-gear, and the windlass, and the propeller-shaft was drawn for examination.

S.s. "Queen of the South." -- Extensive repairs were made to this vessel, and new main and donkey boilers were fitted. Under the boiler and stokehold ten new reverse bars, five new intercostal plates and angles, two new keelson-angles 16 ft. long, and sixteen new washplates and angles were fitted. Under the bunkers four new reverse bars on each side of the bilge were fitted. New bunkers were made and fitted. On the bottom of the hull, under the boiler, a sheathing-plate 12 ft. by 2 ft. 9 in. by  $\frac{3}{8}$  in. was fitted. On the port side of the hull, amidships in way of the galley, a new plate 6 ft. by 3 ft. by  $\frac{5}{16}$  in. was fitted. The galley was removed from the fore deck and fitted to the port side amidships. The foremast was placed 7 ft. further forward, and the forward hatch was extended about 7 ft., and new coamings were fitted. The new main boiler made in Scotland is 9 ft. in diameter and 9 ft. 4 in. in length, and has two furnaces each 2 ft. 9 in. in diameter. It was constructed and passed for a working-pressure of 100 lb. per square inch, and is used at 80 lb. pressure only. The new donkey-boiler is of the vertical cross-tube type, 3 ft. 8 in. diameter and 7 ft. high. It was made in New Zealand, and was passed for a working-pressure of 90 lb. per square inch. One length of the main steam-pipe was renewed and one old length was annealed and tested. All the auxiliary pipes were annealed. Several were repaired and two were renewed and tested. The main feed-pipes were renewed and tested by hydraulic pressure. A new feed heater and filter has been placed on board, and a new funnel was fitted hydraulic pressure. to the main boiler.

S.s. "Rarawa."—The principal repairs made to this vessel during the year were the fitting of 18 ft. of new steel-plate shoeing on keel from aft, two new plates 8 ft. by 2 ft. 6 in. by 1/4 in., and two angleiron stiffeners in port bunker. In the starboard bunker one new plate 6 ft. by 1 ft. by 1 in. and one new gusset-stay and two small patches were fitted. A long riveted patch was put on the side of the upper part of stokehold-casing under the telegraph-wire casing. In the forward boiler twenty-two stays, 119 ordinary tubes, twenty-one screwed stays, and several of the nuts were renewed. In the after boiler forty stays, 169 ordinary tubes, twenty-one screwed stays, and several nuts were renewed. To the outer bracket of the port tail-shaft a new half lower lignum-vitæ bush was fitted. lapsible boat was condemned and a life-raft fully provisioned and equipped was put on board in its

place.