

2 ft. by $\frac{3}{8}$ in., six angles each 23 ft. by 4 in. by $\frac{1}{2}$ in., and one angle 20 ft. by 6 in. by $3\frac{1}{2}$ in. by $\frac{1}{2}$ in. On deck 13 ft. of the topgallant-foremast was replaced with a wooden spar. Several patches were fitted to the furnaces of the main boilers, and several tubes and combustion-chamber stays and nuts were renewed. All pistons and rods of the main engines were drawn and trued up in the lathe. New tube-plates and tubes were fitted to the condenser, and the condenser was afterwards tested by water-pressure.

S.S. "Nile."—This vessel was laid up for some six years, and before she was recommissioned again she was strengthened and repaired. The No. 2 bulkhead was moved 10 ft. farther aft, and three deck-beams were fitted to the hold-spaces and one between the engines and boilers. A new after bulkhead has been fitted. The stringers in both sides of the hull amidships have been strengthened with double angles, and two new sister keelsons have been fitted between the engine and boiler-seating. Two strengthening-plates have been riveted, each 2 ft. 6 in. by 4 in. by $\frac{3}{8}$ in., to the keel under the aperture, and several sheathing-patches have been fitted on the hull-plating at water-line. The rudder gudgeons and pintles have been renewed, and also all wheel-chain sheaves. A new end was welded in the spare tiller. A deckhouse for passenger accommodation has been constructed under the bridge. The boiler has been moved 10 ft. farther aft, and a new casing fitted. The engines formerly in the vessel have been replaced by the set taken out of the s.s. "Torea," and a new tail-shaft was put in.

S.S. "Orepuki."—The first survey of this vessel in New Zealand was made this year, the vessel having formerly been the "Tay I," registered at Hull, Great Britain. The vessel has a gross tonnage of 531.4, and a registered tonnage of 225.7. The engines are of the triple-expansion surface-condensing type, and the boiler is of the usual Scotch marine type. A number of rivets in the hull were renewed; some sheathing was done to the bunkers; the spare tail-shaft and propeller were fitted, and the stern-tube was remodelled; four boiler-tubes and one combustion-chamber stay were renewed in the main boiler. On deck the air-tanks in the lifeboat and all provision-tanks of the boat were renewed. All pins and shackles for cargo gear, and goose-neck pins and several other equipments were renewed.

S.S. "Tainui."—The main keelsons under the boiler of this vessel were dressed up, and steel plates, 16 ft. by 10 in. by $\frac{3}{8}$ in., were fitted on both sides of it. Angles, 3 in. by 3 in. by $\frac{3}{8}$ in., were riveted to the plates, and bolts fitted through the floors and keelsons. The sister keelson was stiffened up with 10 in. by 5 in. by 16 ft. timber bolted through floors and keelsons. The copper sheathing in hull was removed and replaced with $\frac{7}{8}$ in. totara sheathing. A new forward end has been fitted to the deckhouse. Flaws were found to have developed in both webs of the after-crank of the main engines: these were strapped.

Auxiliary Scow "Vesper."—The hull of this vessel has been sheathed with totara, and a new centre-board case and rudder fitted. The tail-shaft bracket bushes were renewed. The oil-tank was tested by water-pressure. A donkey boiler has been fitted on board. The following deck equipments were renewed: A class D boat and its equipment, foremizen topmast and backstays, fore boom and saddle on mast, running-gear and sails, hatch scuttle cover, and standard compass.

S.S. "Waikora."—This vessel was under a running survey when she collided with the King's Wharf at Auckland. The stem and adjoining plates were severely damaged. The damaged space was coffer-dammed off, and the vessel proceeded on her voyage to Port Chalmers. The final portion of vessel's survey was made at Port Chalmers. The following permanent repairs were made to the stem: The stem was taken out from the scarf and the fore-castle-head faired, scarf cut, and refitted. Forward plates on the port and starboard sides of L strake were taken ashore, faired, and replaced. The forward plates on the port and starboard sides of K strake were cut between frames 177 and 178. New plates were fitted and connected with inside butt strap, treble-riveted. Similar plates in I and H strakes were also renewed and riveted likewise. Broken frames were scarfed and renewed. An additional breastwork and heavy floor-plate were fitted between the tank-top and main deck.

The total number of steamers and of auxiliary-powered vessels which have been surveyed this year for certificates is 762.

Besides these complete surveys numerous visits have been paid to vessels that were docked during the year between survey dates and when minor repairs and alterations were being made. In Auckland the new slip for docking vessels is not nearly so handy as the small dock which has now been filled up. The new slip is situated in Freeman's Bay, and is about one mile and a half from Queen Street. Longer time is therefore taken in completing a vessel now than in former years. The larger vessels are all docked in Devonport at Calliope Dock.

Survey of Ships for Seaworthiness.

There was an increase in the number of vessels surveyed for seaworthiness during the year compared with last year. A great number of these surveys were due to severe weather conditions resulting in vessels being damaged by seas or by grounding, or when being berthed. In one case the cause was due to boiler-deterioration, two were due to broken crank-shafts, and one was due to a broken eccentric strap. There was a total number of twenty-four surveys made.

Government Vessels.

Fifteen Government vessels were surveyed during the year. The names of them are—s.s. "Amokura," "Ben Lomond," t.s.s. "Earnslaw," s.s. "Hauraki," s.s. "Hinemoa," o.e.v. "Huia," o.e.v. "Iriani," s.s. "Janie Seddon," o.e.v. "Manurere," o.e.v. "Mororo," p.s. "Mountaineer," o.e.v. "Patiti," o.e.v. "Reremoana," s.s. "Tawera," s.s. "Tutanekai."