

S.S. "John Anderson."—A new main boiler, with new seats and casings, was fitted into the vessel. Structural repairs to the hull in the engine-room consisted of five new floors and reverse-bars, two new stringer-bars, and five new frames in the bunkers. The bunkers were renewed. Two new plates were fitted to hull. The bottom of the collision-bulkhead was repaired. The repairs to the machinery included the straightening of the intermediate shafting and the facing of the couplings, and the drawing and the cleaning of condenser-tubes. All winch steam-pipes were renewed. A new seat was fitted to one safety-valve. A new check-valve and a new blow-down pipe were fitted.

S.S. "Karoro."—Some important repairs were made to the hull of this vessel. The main keelson on the engine-room was strengthened by fitting two pieces of hardwood on each side of it. Two new sister keelsons were placed under the boiler-bed. The bulkhead between the boiler and fore hold and seven floor-timbers in the fore hold were renewed. Nine feet of the upper part of the stern was renewed, and four new hull-planks have been fitted on the starboard side and three on the port side. A new deck has been laid between the hatchway and the after-deck house. The vessel has been fitted with a new boiler, which was constructed in Auckland under the supervision of the local Surveyors.

S.S. "Maheno."—This intercolonial steamer is of the turbine-driven class. Her original machinery consisted of three sets of direct-driven turbines driving separate propellers. Those were taken out of the vessel at Port Chalmers and two sets of geared turbines were installed. The original central propeller has been discarded. All the original turbine and shaft seatings were cut out, and new seatings for the turbines, gear-cases, thrust-blocks, and bearings were erected. New stern-tubes of lap-welded steel have been fitted. All ballast-tanks were tested by water-pressure. Alterations were also made in the passenger accommodation, and casings for eight cabins have been fitted on the port and starboard sides of the after end of the smoking-room on the promenade deck. The geared turbines were made by Messrs. Denny, engineers, of Dumbarton.

S.S. "Mascotte."—The main boiler was lifted out of this vessel. New tubes, new bar-stays in steam-space, and four new stays in the combustion-chamber were fitted. The boiler was tested by hydraulic pressure to one and a half times the working-pressure. All main steam-pipes were also tested.

S.S. "Ngatiawa."—Both of the main engines were raised. The engine-seatings, all the reverse angles under engine-seatings, and all intercostals were riveted. Four of the intercostals were renewed. Two new 3 in. pillars were fitted in the engine-room. Both engines were relined off and fitted down to teak-wood chocks. New holding-down bolts were made and fitted.

O.E.V. "Taupiri."—This vessel received a thorough overhaul. Twenty-five rib frames, two sister keelsons, and several planks on both sides of hull were renewed. The inside lining of hull, the stern-post, the deadwood rudder, and rudder-post were renewed. A new stern-tube, propeller-shaft, and propeller have been fitted. The steering-gear has been renewed throughout, and a deck-house has been erected over the machinery.

S.S. "Wairoa" (of Auckland).—The wooden bearers under the boiler have been removed and replaced with two long bearers, 28 ft. by 8 in. by 6 in., which have been bolted down to the hull. A new keelson, 40 ft. by 10 in. by 10 in., has been fitted under the engine and boiler. The lower side plates of the bunkers have been renewed. The old boiler was lifted out and a new boiler installed. The new boiler was fitted with new gun-metal mountings, new stop and safety valves and chests, smoke-box, and funnel. The stern-tube was rebored, a new metal bush and a new brass-lined propeller tail-shaft fitted. The whole of the engine-shafting was lined up. New feed-pump escape-valves and chests were fitted. A portion of the main steam-pipe was renewed, and the whole of the main and auxiliary steam-pipes were tested by hydraulic pressure to double the working-pressure.

The number of steamers and auxiliary-powered vessels surveyed during the year amount to 756, which shows a considerable increase on last year's surveys. Besides the usual annual surveys, a great many visits have been made by the Surveyors to vessels between annual-survey dates at docking-times, to have a look at the hulls and to see that the boats and equipments had been kept up to the standard.

The steamer excursion trips have been quite as numerous during the year as in former years, and have all been run free of accident.

Surveys of Ships for Seaworthiness.

Thirty-six of these special surveys of steam-vessels were made during the year throughout the Dominion. The principal causes for these surveys were the following: Vessels grounding, collisions, fire, boiler-defects, defects in steam-pipes, and leakage in hulls through loose rivets, mostly caused by driving vessels when light against a heavy head sea.

Government Steamers.

The Government steamers were all surveyed during the year, at which surveys no extensive repairs were made, with the exception of the s.s. "Janie Seddon" and s.s. "Lady Roberts," both of which have had fairly heavy repairs made to their main boilers. The names of the Government vessels surveyed are—s.s. "Ben Lomond," s.s. "Barnslaw," s.s. "Hauraki," s.s. "Hinemoa," o.e.v. "Huia," o.e.v. "Irvine," s.s. "Janie Seddon," s.s. "Lady Roberts," o.e.v. "Manurere," o.e.v. "Maroro," s.s. "Mountaineer," o.e.v. "Patiti," o.e.v. "Reremoana," s.s. "Tawera," s.s. "Tutanekai," and o.e.v. Defence launch "W."

Additional Steamers and Auxiliary-powered Vessels surveyed for the First Time.

Sixty-one steamships and vessels fitted with oil-engines as a motive power were surveyed for the first time during the year. This clearly proves the healthy expansion of the shipping trade in and around the ports of the Dominion, notwithstanding the adverse conditions under which trade has been carried on during the year.

Sailing-ships.

All surveys that were asked for by owners have been carried out. Several of these vessels have required a fair amount of time spent on them, as the repairs in some cases were fairly heavy. These