1920.

NEW ZEALAND.

MARINE AND INSPECTION OF MACHINERY DEPARTMENT.

ANNUAL REPORT FOR 1919-20.

Presented to both Houses of the General Assembly by Command of His Excellency.

INDEX OF RETURNS.

Marine Department, Wellington, 24th August, 1920

MY LORD,—

I do myself the honour to transmit herewith, for Your Excellency's information, the report of the Marine Department of the Dominion for the financial year ended the 31st March last.

I have, &c.,

W. H. HERRIES,

Minister of Marine.

His Excellency the Right Hon. the Earl of Liverpool, G.C.M.G., M.V.O., Governor-General of New Zealand.

The Secretary, Marine and Inspection of Machinery Department, to the Hon. the Minister of Marine.

Marine and Inspection of Machinery Department,
Wellington, 30th June, 1920.

Sir,—

I have the honour to make the following report on the work of this Department during the year ended the 31st March, 1920.

The whole of the various services of the Department have been well maintained during the year, and I can bear testimony to the zeal displayed by all the officers of the Department.

The coast-lighting has been kept up without a break, and there were fewer changes amongst the keepers this year than in the previous year. The Department, so far as it can, makes the isolated life of the lighthouse-keeper as pleasant as possible. The usual visits by the Government steamer have been made to all stations and with great regularity.

The Inspectors of Machinery have had an exceedingly busy year with land machinery and prime movers, which have increased enormously since last year. Constant demands are being made in districts for all dairy factories to be inspected in the winter months, and in many cases the requests have been granted, but the limit of such inspections has now been reached, as the staff is only a small one. Some of these factories are busy all the year round, and the future prospects of this industry are very bright. The shipbuilding industry has not been busy during the year, and the difficulty of getting skilled labour and material may account for part of the stagnation. The whole of the surveys of ships, both steam and auxiliary steamers and sailing-ships, is fairly well completed. The introduction of oil fuel is being adopted by some of our New Zealand steamers, and the s.s. "Niagara" has run with this fuel for a long time. Steam can be maintained with unvarying pressure all the time, and the crews are much reduced in numbers for the power developed, as the whole thing is automatic. The storage of oil in the tank spaces, formerly used for water ballast, affords a considerable increase in the cargo-carrying capacity of the steamer using oil fuel. The cleanliness of the stokehold as compared with boats using coal as a fuel is very marked, and the working-conditions of the firemen are, of course, much improved.

The use of electric lifts in buildings is being adopted more and more every year, and it will be necessary to make regulations very soon governing their use, so that their inspection and construction may be made more uniform all over the Dominion. The speed will have to be regulated, and the electric equipment and safety appliances made effective and up-to-date. For the number now in use very few accidents have occurred, which is a very gratifying result.

The boiler-inspections are not up to date, but we have inspected more than we did last year. An interesting discussion took place over the steel material used in the construction of a very large multitubular boiler made in the South Island, and this continued for some time until we had the proof of the correct tests of the plates from the works in Great Britain where the steel was made. These were supplied by Lloyd's Register, and were finally accepted. No boiler-explosion occurred during the year.

The examinations of the various classes of marine engineers' examinations, of masters and mates, of land extra first-class engineers, engine-drivers, and electric-tram drivers have all been held as desired, and all applicants who applied were examined. Some of these candidates passed a really good examination, and it is noticeable how few New Zealand boys fail in the mathematical part of their examinations, which at least shows their aptitude. It also sets out clearly that their school-training has been of such a character as to make them real students, which is very marked by the answers to the *vivâ voce* part of these examinations on scientific subjects.

I have visited a great many of the centres of industry in New Zealand and have met many manufacturers, shipowners, and engineers. I have also had an interesting and instructive visit to New South Wales and Victoria. While there I called on all Government Departments in Melbourne and in Sydney interested in services like our own and gleaned from them a great many hints useful to our own Department. The visit I paid to the Government dockyards in Sydney was full of interest, and the storage of oil fuel on shore was a new thing for me altogether. Nearly a whole day was spent in the Government naval training-ship in Rose Bay. At Newcastle I visited the steelworks there, which are on a very large scale, and saw the ore in all processes of being converted into steel. The ore used at these works is mined in South Australia, and to be near the coal-supply the works were placed in Newcastle. Rails for one of the Australian States were being rolled during my visit. The manufactures of this company are now on Lloyd's list, and are very good and up to date in every way. The frames of a steam-vessel at present being constructed in Auckland are being made by this firm.

All those with whom I came in contact in Australia were exceedingly kind to me, and were anxious that I should not miss any point that might be of interest or of use.

Survey of Steamships and Auxiliary-powered Vessels.

New rules for the construction of steel boilers for ships are being considered by the Board of Trade. A brief statement of the approximate changes has been received by the Department, and these new rules are now being used for new marine boilers. Amendments have been made chiefly in the method of calculating the working-pressures for cylindrical shells, flat plates, longitudinal steel stays, and furnaces. Rules have also been promulgated for oil-fuel installation in steamships and for shafts of internal-combustion engines other than those of the Diesel type. The diameters of the shafts are determined by the rules of Lloyd's Register. The rules apply to shafts made of ordinary steel, but special consideration is given by this Department to shafts made of special steel, tobin bronze, manganese bronze, phosphor bronze, and other similar metals.

A very great proportion of the new vessels surveyed each year are fitted with oil-engines. Special precautions are necessary on oil-engine vessels to minimize the risk of fire. Oil-tanks should sit on a metal tray or on a metal-lined wooden casing. The deck round the filling and vent pipes should be sheathed with lead. The motors should stand in a substantial metal tray, or the bilges should be cemented underneath to form a bed. The motor-room must be efficiently ventilated. These are only a few of the precautions necessary. Prospective launch-owners should consult the Engineer Surveyor of Ships in their district before installing the oil-engines in ships. The greatest safeguard of all, however, is cleanliness. Bilges and woodwork should be kept free of oil, and all joints kept perfectly tight.

The total number of steamships and auxiliary-powered vessels surveyed was 722. There was only one vessel over 25 tons gross built in the Dominion this year. This is the o.e.v. "Tuhoe," which has a gross tonnage of 186 and register tonnage 98. She was built to plans and specifications which were submitted to the Department for approval before the building of the vessel was commenced. The vessel is a light-draught scow, built of wood on the diagonal principle, Her registered dimensions are—Length, 97·8 ft.; breadth, 24·7 ft.; depth of hold, 6·5 ft. She is propelled by two sets of semi-Diesel oil-engines of 60 b.h.p. each. There are two cylinders to each engine, 9 in. diameter and 13 in. stroke.

It was found necessary to install new propelling-engines in thirteen vessels, and new cylinders in three vessels. One vessel was fitted with a new main boiler, and the pressure of the main boilers of two vessels, and also the donkey-boiler pressure of two vessels, had to be reduced. Renewals were also made as follows: New tail-shafts to fifty-seven vessels; new propellers to nine vessels; new propeller-blades to five vessels; and new propeller-bosses to one vessel. Three vessels had new crank-shafts or parts of crank-shafts fitted, and new main steam-pipes were fitted to two vessels. Three vessels were converted from sailing-vessels to oil-engine vessels and one from oil to sail. One vessel was converted from steam to oil and one from oil to steam. One vessel was converted from a steamship to a sailing-vessel.

The following is a list of a few vessels selected from those which have received more or less extensive repairs, and also a description of the repairs:—

S.s. "Canopus."—The chief repairs to this vessel were made to the hull. A new bulkhead was fitted between Nos. 3 and 4 tanks, and a plate in No. 3 tank was renewed. Two sheathing-plates, each 13 ft. by 4 ft. by $\frac{3}{8}$ in., were fitted under the donkey-boiler, and five floors in the tank under the boiler were stiffened with 3 in. by 3 in. by $\frac{3}{8}$ in. angle-bars. In the after-peak tank a 4 ft. by 16 ft. by $\frac{3}{8}$ in. plate was riveted to the tank-ceiling, and a new bulkhead-stiffener, new beam, and two new gusset-plates to the beam were also fitted. Two deck-plates, one on each side of the foremast, have been sheathed. The forecastle has been enlarged to give increased accommodation for the crew. Ordinary running repairs were made to the main engines. Some stays and rivets in the main boilers received attention and wasted parts were built up. A Lowmoor iron patch was riveted on the bottom of the port furnace and the combustion-chamber of the donkey-boiler. The boiler was afterwards tested by hydraulic pressure. The worn parts of the steering-gear were renewed and the steering-chains were also annealed. A new flying derrick to No. 1 hatch and a new foretopmast-head were fitted.

S.s. "Hina."—This vessel received a very thorough overhaul at the annual survey. About 83 ft. of planking on the port side, and about 222 ft. on the starboard side, were renewed. A piece of the keel, 8 ft. 6 in. long, and a piece of the sternpost, 2 ft. 6 in. long, were also renewed. A new false keel has been fitted, and the hull sheathed with totara, and new rolling-chocks fitted on both sides. New fastenings in the keel and keelson under the boiler have been put in, new lining has been fitted in the holds, and new bunker-casings have also been fitted. In the list of repairs to the propelling machinery are included new high-pressure and low-pressure crosshead pins and brasses, high-pressure ahead eccentric strap, link-motion pins, feed-pump plunger and eccentric strap, bilge-pump plunger, and suction and discharge valves, air and circulating pump rod, and circulating-pump bucket. New holding-down bolts were fitted in the engine-bed, and a patch was put on the after end of the condenser-door at the back. New bolts were also put in the boiler-seating. A new end was welded on the propeller-shaft, and a new liner also fitted on. New blades were fitted to the propeller. The vessel's two boats were provided with new provision-tanks, and all the buoyancy tanks were repaired and tested.

Steam Dredge "Kaione."—This dredge was built in 1917 at Paisley for the Wanganui Harbour Board. She arrived in Wellington about September last, and was surveyed for a restricted-limits certificate. The leading dimensions of the vessel are: Length, 190 ft.; beam, 35 ft.; depth (moulded), 16 ft. 6 in.; gross tonnage, 876; net tonnage, 368. She is fitted with four sets of compound engines having cylinders 13 in. and 26 in. diameter by 15 in. stroke, and supplied with steam from two boilers of the usual marine type, 12 ft. 8 in. diameter by 10 ft. long, working at a pressure of 130 lb. per square inch. At the survey, two additional main injection-valves were fitted to the bottom of the vessel and connected to the Gwynne pump in the engine-room. A new mast aft, with boom and topsail, new steering-compass and stand, and 135 ft. of new fire-hose were also fitted on board.

S.s. "Kapuni."—The main keelson for a length of 27 ft. where it runs under the main boiler of this vessel has been renewed. The new length is of ironbark, 14 ft. by 12 ft. Two new 14 in. by 10 in. boiler-beds extending into the fore hold have been fitted. A stay has been renewed in the port combustion-chamber of the main boiler. The high-pressure cylinder was bored out, new piston and rings were fitted, and the piston-rod was skimmed up. The thrust and intermediate shafts were lined up, and new bolts have been fitted to the thrust-shaft couplings. The tail-shaft was replaced by a spare one. The fair-lead blocks for the steering-gear have been rebushed and new pins fitted. The tiller has been replaced by a quadrant.

T.s.s. "Kennedy."—A plate, 7 ft. by 3 ft. by $\frac{3}{8}$ in., on the hull of this vessel under the port engine was renewed. A new keel-plate, 5 ft. by 2 ft. 6 in. by $\frac{3}{8}$ in., was fitted under the main boiler, a short length of the butt strap over the keel-plate was re-riveted, and the sheathing-plates were riveted over the port and starboard bilge-plating in way of the bunkers. Inside the hull under the main boiler three new floor-plates were fitted, and four frames were backed at the centre. New angle-bars, 6 ft. long, were riveted to both sister keelsons. New angles were also fitted to the boiler-chairs. A number of rivets in the bow-plating were renewed. A piece 4 ft. long was cut off the rudder-stock, and a new end welded on. The main boiler has been retubed, and cracks in the furnaces welded up by the oxy-acetylene process. A new outer liner has been put on the starboard tail-shaft, and a new starboard bracker-bush fitted. The high-pressure crank-pin of the starboard shaft has been renewed and the shaft bedded down. Both feed-pump plungers have been renewed. A new plunger has been fitted to the port bilge-pump. The condenser-tubes have been repacked. Two new planks have been fitted in the vessel's starboard boat, and new after boat-falls provided. The lifeboat on the port side is new. A new house has been erected on the bridge-deck for the accommodation of the master.

S.s. "Koroi."—Several sheathing-plates have been riveted to the hull-plating, and new plating, 7 ft. 9 in. by 1 ft. 9 in., riveted to C strake, starboard side. The rudder-post has been stiffened with $\frac{1}{4}$ in. plates on both sides, and three new pintles and two new gudgeons were fitted to the rudder, and also a new steering-rod on the starboard side. The bunker-plating has been renewed throughout, and a new bunker-door and cover over the boiler have been fitted. The stern-bush and propeller have been renewed. New plates have been riveted in the bottom half of the shell of the boiler, and the boiler tested to a hydraulic pressure of 300 lb. per square inch.

S.s. "Mararoa."—This vessel was granted a certificate for a period of six months only. The top of No. 3 tank was extensively repaired, and the longitudinal plate abaft the subdivision of this tank was strengthened. Repairs were also effected to No. 2 ballast-tank. Under the thrust-block three longitudinal plates, $\frac{3}{8}$ in. thick, were fitted, and two floors abaft the thrust-block were strengthened with $\frac{3}{8}$ in. plating. A number of other floors have also been strengthened. The tail-shaft was found to be defective, and the spare tail-shaft was therefore fitted. Two of the propeller-blades were replaced with spare blades. The main boilers were overhauled, and several cracks in the furnaces and combustion-chambers were welded up. A number of defective stays and tubes were renewed. The boilers were tested by hydraulic pressure to 240 lb. per square inch. Temporary repairs were made to the three top rings of the funnel.

S.s. "Monowai."—This vessel's main boilers received a thorough overhaul. Four corrugated furnaces and the bottom parts of the combustion-chambers in the centre furnaces have been renewed. The furnaces are 3 ft. $6\frac{1}{8}$ in. diameter, 7 ft. $3\frac{1}{2}$ in. long, and $\frac{9}{16}$ in. thick. The new lower parts of the tube-plates were electrically welded to the old upper portions, and butt straps were riveted over the welds. New stays to the number of 270 were fitted in the sides and bottoms of the combustion-chambers of these furnaces, all new stays being one size larger than the old ones. A number of ordinary and stay tubes were also renewed. On both boilers new compensation-plates were riveted on at the front lower manholes, and various other repairs effected. The boilers were tested to 240 lb. per square inch by hydrostatic pressure. The hull-plating on both sides in way of the crew's quarters has been sheathed with two plates, 4 ft. by 4 ft. by $\frac{5}{16}$ in., and one 8 ft. by 4 ft. doubling-plate has been renewed on the starboard side abaft the ash-chute. In the bunkers several plates and stiffeners on the forward watertight bulkhead and on the casings have been renewed, and several plates have been sheathed. About two dozen intercostal plates in the stoke-hold bilges have been cut out and renewed. Twelve floor-plates and angles under the boilers and six web-frame plates have been repaired. The crew's accommodation has been reconstructed. In the engine-room the principal repairs include the retubing of the condenser and the fitting of a new cylinder to the hydraulic engine.

S.s. "Result."—The planking in the top strake of this vessel's hull was renewed to the extent of 25 ft. on the port side and 16 ft. on the starboard side. A new ironbark rudder-stock with new pintles and bushes has been fitted. The stem has been refastened and the decks recaulked. The starboard bunker has been sheathed. The anchor and steering chains have been annealed. Minor repairs were made to the engines, including a new air-pump rod, new cod-pieces and brasses to the link-motion, and seven new studs in the high-pressure casing cover-door. A new cylinder-cover and piston have been fitted to the winch, port side. A top strake of the vessel's boat has been renewed.

S.s. "Ripple."—The following repairs were made to this vessel's main boiler: The bottom of the port combustion-chamber and a portion of the furnace-landing have been cut out, and a plate, 3 ft. by 13 in., has been welded in by the oxy-acetylene process; three broken stays in the sides of the combustion-chamber have been renewed, and also all new plain tubes fitted in the port combustion-chamber. Two new safety-valves were fitted; the boiler was tested by hydraulic pressure to 230 lb. per square inch. A new vertical bar stay has been fitted into the donkey-boiler. Several plates and angle-bars in the vessel's bunkers were renewed or sheathed. Repairs were made to two floor-plates under the main boiler, and some reverse frames on the floor-plates were renewed. The main keelson intercostal plates under the main boiler were stiffened with four 3 in. by 3 in. by $\frac{3}{8}$ in. angle-bars in each bay. A sheathing-patch, 8 ft. by 1 ft. 8 in., has been riveted to the after deck. New pintles and bushes were fitted to the rudder.

S.s. "Simplon."—This vessel is a steam trawler. The fish-chamber was gutted out and the cement floor removed, and an examination was made of the ship's skin underneath. It was found to be in good order. The insulation of the chamber has been renewed and a new cement floor laid down. A new stokehold has been fitted, and a 500-gallon tank for a fresh-water supply to the boiler has been built into the bow of the vessel. On deck a new wheelhouse and funnel have been erected. Repairs have been carried out to the deck-beams and decks and to a floor-plate under

the boiler. The bunkers have been practically renewed. Some wasted parts were found at the mouth of the centre furnace of the boiler, and these have now been built up with the oxy-acetylene welding process. A supplementary stay has been fitted in the centre of a bilge in the back of the centre combustion-chamber. The main engines were overhauled. The high-pressure cylinder was bored out and new piston-rings fitted. Both piston-rods and the feed-pump rod were turned up and new neck-bushes were fitted, and the glands were rebushed. A new impulse-valve has also been fitted. The crank and thrust shafts were lined up, and the main bearing-brasses bored out. The thrust-shoes were remetalled. The steering-gear chains were annealed and examined thoroughly.

O.e.v. "*Sneaker.*"—This vessel is a small launch plying within river limits at Stewart Island. A survey of the vessel has been made, and new framing, natural bends, and new planking, excepting in the four top strakes, have been worked into the hull. The stern-bush has been remetalled.

S.s. "*Southern Cross.*"—Extensive repairs have been carried out to Nos. 1 and 2 deep tanks; new tank-tops, angle-bars, gussets, a new plate on the centre bulkhead between the tanks, new lower stringers and gussets on each side of the tanks, new angle-bars on the fore and aft bulkheads of No. 2 tank, and new angle-bars and gussets on the tunnel in this tank have been fitted. The tanks were tested by water-pressure after the repairs were completed. The floor in the stokehold has been renewed, and new angle-bars, gussets, and patches fitted in the bunkers. The floor-plates under the boiler have been repaired and the boiler-cradles have been renewed. In the chain-locker, the upper and lower stringers, port side, the upper half of the stringer on the starboard side, and one gusset-plate to the stringer have been renewed. Repairs were made to a floor-plate. New spurling-pipes have been fitted. Sixteen rivets in the sheathing-plates on the starboard bow were taken out and renewed. A new end was fitted to the rudder-stock, and two rudder-pintles were renewed. Repairs to the main boiler include the reriveting of part of the seams in the combustion-chambers and furnaces and the renewing of the ordinary tubes.

O.e.v. "*Taupiri.*"—The hull of this vessel has been thoroughly overhauled. Four new stringers have been fitted for the full length on each side of the hull; two new thwartship beams, new floor-bearers, new bottom planking, and new diagonals have also been fitted. The hull has been thoroughly caulked. The engines were taken out of the vessel and repaired, and new piston-rings and brasses fitted.

T.s.s. "*Waikana.*"—At the survey of this vessel it was found necessary to renew eight plates in the bottom of the hull; the plates averaged 2 ft. long by 2 ft. 9 in. wide, and are $\frac{5}{16}$ in. thick. A number of rivets were renewed and two new shoe-plates fitted to the keel. The tail-shafts were fitted with new liners and the stern-tubes with new lignum-vitæ. Repairs were also made to eight air-tanks attached to buoyant seats.

S.s. "*Wairua.*"—This is a wooden vessel, which has been lengthened 18 ft. in accordance with plans and specifications approved by the Department. Increased space for passenger accommodation, and, in addition, a hold for cargo, 38 ft. 6 in. long, have been obtained. The new length of the hull has been efficiently connected at each end to the older portions. Three pieces of ironbark, each 50 ft. by 12 in. by 12 in., have been bolted to the sides of the existing keelsons. The keel and keelsons have been well scarfed and fastened with $\frac{7}{8}$ in. bolts. A cargo-winch has been installed on deck.

S.s. "*Waitangi.*"—This vessel has been twice surveyed this year. The principal repairs recently made to the vessel are as follows: Seventeen defective plates have been renewed in various parts of the hull in way of the engine and boiler-spaces, and the engine-seating floors on the starboard side have been strengthened at the bilge. Six new floor-plates and reverse frames were riveted in under the main boiler. Some repairs were also made to the keelsons and intercostals at this part. New bunkers were erected on both sides of the ship, and the stringer-plates over both bunkers have been renewed. A new steel bulkhead has been erected between the stokehold and No. 1 hold. The pipes to the refrigerator passing through the bulkhead have been welded to the bulkhead, and all bilge-pipes were jointed to each side of the bulkhead and cemented over. A water test was made and the bulkhead found perfectly tight. The bulkhead between the engine-room and the after hold has been thoroughly repaired and tested. The slide-valves and faces of the main engines have been machined and various other repairs effected. New holding-down bolts were fitted to the bed-plates of both engines. A new tail-shaft on the port side was shipped. A new end was welded on to the starboard shaft, and new liners were fitted to this shaft. New neck-brushes and stern-glands were fitted in both stern-tubes, and the lignum-vitæ bored out; a new brass bush and new metal were fitted to the starboard tail-shaft bracket, and new metal in the port bracket. New bolts were fitted to the coupling of the port thrust-shaft. Repairs to the winches and cargo gear include a new cylinder and piston on the port side of the forward winch, and new crosshead brasses and new bolts in the top and bottom ends were fitted. A new stop-valve was provided for the after winch. A new midship derrick has been fitted at No. 1 hatch. Repairs were also made to the boiler. A piece was cut out of the front end of the boiler at the bottom, and a patch put on. A piece of plate was welded into the bottom of the furnace. The boiler was tested by hydraulic pressure to 150 lb. per square inch. A new forward boiler-chair has been fitted. New iron bearers and floor-plates have been fitted into the stokehold and engine-room. At the beginning of the year a survey was also made, when twelve reverse frames and two keelson-angles were renewed in the fore hold, and one frame on the starboard side amidships was also renewed. The bridge deck on either side was extended for 5 ft. to give increased bunker capacity. The forward hatchway was enlarged by 3 ft. 1 in. in length and 2 ft. 8 in. in width. The foremast was shifted about 4 ft. farther forward. An ammonia refrigerator has been fitted up on deck, and the fore hold has been insulated. A new ballast-tank was set up in the fore part of the ship, having a capacity of 285 cubic feet. At the after hold a new mast (50 ft. long), new boom (27 ft. long), all new gear and backstays were fitted. An after winch was also installed.

Survey of Ships for Seaworthiness.

Fifty-five surveys for seaworthiness were made during the year. As usual, a large proportion of the vessels were damaged in collision and through stranding. There were seven instances where fire was the cause of trouble. One case deserves special attention as showing the necessity for great care being exercised in the engine-room of an oil-engine vessel. An attempt was being made to start the auxiliary engine of the o.e.v. "Kiritona" when it back-fired. An explosion occurred, due, it is supposed, to the ignition of petrol-vapour which had accumulated in the engine-room. One of the engineers was severely burnt. Unfortunately, he had one of his fingers bound with a rag which had become saturated with benzine, and his arms and hands were severely injured. The fire was put out with a fire-extinguisher. A survey of the vessel has been made, and the electric wiring has been renewed. Repairs have been made to the carburettor on the auxiliary engine, and all air-inlets to carburettors have been covered with gauze wire. New belting for the dynamo and pumps has been provided.

The s.s. "Westmoreland," of London, which was also surveyed for seaworthiness, was found to have sustained considerable damage. On leaving the Bluff Harbour on the 21st May last the vessel struck on some rocks. She began to make water in the bilges, but the pumps were able to keep it down, and she proceeded on her voyage to Port Chalmers. There she was placed in dock and the following repairs effected to the vessel's bottom: Ten plates on the port side were removed, faired and repaired and replaced, and four were faired in place. On the starboard side eighteen plates were removed, faired and repaired and then replaced, and seven plates were faired in place. Four keel-plates were removed, faired, and replaced. About 30 ft. of starboard bilge-keel were removed, faired, and replaced. The floors on the starboard side were cut out, faired and replaced, or renewed where required. On the port side eleven floors were similarly treated. The joints were fitted with double butt straps, double-riveted. Repairs were also made to some frames on both sides; forty-four on the starboard side and twenty-five on the port side were cut out and either straightened or renewed. All joints were electrically welded.

Survey of Government Vessels.

There were fifteen Government vessels surveyed during the year. Their names are as follows: s.s. "Ben Lomond," s.s. "Earnslaw," s.s. "Hauraki," s.s. "Hinemoa," o.e.v. "Huia," o.e.v. "Irini," s.s. "Janie Seddon," o.e.v. "Manurere," o.e.v. "Mororo," p.s. "Mountaineer," o.e.v. "Patiti," o.e.v. "P.W.D.," o.e.v. "Reremoana," s.s. "Tawera," and s.s. "Tutanekai."

The "Tutanekai" was overhauled in September last. Two plain tubes were renewed in the port main boiler, and one stay-tube and one plain tube were renewed in the starboard main boiler. The main and auxiliary steam-pipes have been tested to 340 lb. per square inch hydrostatic pressure. A new piston-valve cover has been cast and fitted to the high-pressure cylinder. The steering-engine has been overhauled and repaired. The steerage accommodation has been taken out of the vessel and the space converted into sleeping-quarters for the firemen and sailors. Mess-room accommodation forward of the sleeping-quarters has also been provided. A bathroom with hot and cold showers and with washing-basins has been fitted up, and new sanitary conveniences also have been provided. This vessel has been engaged on certain special services during the year and on work for Government Departments.

The "Hinemoa" has been overhauled during the year, and, considering her age, is in good condition. She has been employed on her usual work of taking oil, gas, coal, stores, and provisions to lighthouses, and in shifting lightkeepers and their families from one station to another when transfers have been made. She has also carried on the work of overhauling, cleaning, and painting coastal and harbour buoys and beacons. The whole of the work, much of which is of a very risky nature, has been carried out in a very satisfactory manner.

S.s. "Amokura": This vessel is still being used as a training-ship for boys, but she has not been to sea during the past season, as when she was stripped for some repairs it was found that her condition was such that it would cost a large sum of money to carry out the work necessary to put her in a good seaworthy condition, and if it had been done, owing to her age further repairs would no doubt be required in the near future. Under these circumstances it was decided to endeavour to obtain another vessel, and the Imperial Government was asked whether it could let the Dominion have one. The request was agreed to, and Captain Hooper is at present in England in connection with the selection of a suitable vessel.

There has been no difficulty in getting sufficient boys during the year, and there are still a few applicants waiting for admission when there are vacancies for them. The usual technical-school classes in connection with the ship were carried on during the winter, and as the vessel did not go to sea during the summer the classes were continued in a modified form during that season. The general behaviour of the boys has been good. There has been no difficulty in obtaining employment for them in other ships on completion of their training on the "Amokura." Appended is a return of the boys who have served in the vessel during the year.

S.s. "Rama": This vessel was lent to the Commonwealth Government for service connected with the war, and has since been sold to the Chatham Islands Fishing Company (Limited).

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

The number of vessels surveyed for the first time during the year is fifty-four. Of this number only two are steamships.

Survey of Sailing-vessels.

The sailing-vessels surveyed this year number fifty-four. The following are notes of the repairs made to some of them:—

Schooner "Alert."—The keel of this vessel was reinforced with two sister keelsons, 30 ft. by 14 in. by 8 in., each bolted through the keel and the bottom. Stringers, 4 in. by 4 in., were fitted on top of the existing stringers to strengthen them, and new 9 in. by 2 in. lining was fitted fore and aft. The centre-board casing was caulked on each side, and the bottom sheathing was repaired. The top of the uptake of the donkey-boiler was built up by autogenous welding and re-riveted. Repairs were made to the anchors, and all defective steering-chain was renewed. A new bowsprit has been fitted, and the running-gear has been renewed. The hatch-landings have been increased in width to comply with the new regulations.

Schooner "Greyhound."—On the after quarter, port side, twelve strakes of hull-planking, thirteen top timbers, eight deck-beams, and all the lining from the mainmast to the stern were renewed. The poop decking and beams have been renewed throughout. The cabin and the engine-room have also been renewed. The hull was caulked and coppered where required. Repairs were made to the rudder and to the steering-gear. One hundred fathoms of new $\frac{7}{8}$ stud chain cable and a stream-anchor were placed on board.

Sailing-vessel "Manurewa."—The principal repairs at the survey were made to this vessel's cargo-working gear. A bulge was found in the side of the firebox of the donkey-boiler. Four screwed stays, 1 in. in diameter, Lowmoor iron, were fitted through the bulge. The winch was overhauled, and new piston-rings, new ends to piston-rods, new drag-link, and new keys to the clutches were fitted. The perishable provisions in the lifeboat were renewed.

Schooner "Progress."—This vessel was formerly a steam bucket dredge. She has now been converted into a three-masted schooner. Plans and specifications of the alterations were submitted and approved before the work was commenced. All the dredging machinery and propelling machinery, boiler, winches, and machinery of all descriptions were dismantled and removed from the ship, which was gutted from end to end. The hull was scaled, chipped, and broomed inside and out, and coated with anti-corrosive paint. The wells, hoppers, and fore and aft watertight divisions were cut out, and new frames, reverse frames, and floors were fitted in way of the well and hoppers. A 14 in. by 7 in. by $\frac{3}{4}$ in. beam keelson was fitted, also $\frac{1}{2}$ in. to $\frac{7}{16}$ in. keel-plate. The side keelson-angles were opened up and $\frac{5}{16}$ in. intercostal plates fitted, extending as far forward and aft as practicable. The wells were plated to the original shell-plating with $\frac{9}{16}$ in. plates. Two hatchways were cut in the deck, and each side of the hatchways was bracketed in lieu of pillars. The main deck has been plated and wood-sheathed all over; the old bulwarks forward and aft were stripped to the deck, and a new forecastle and poop have been built of steel for the accommodation of the officers and crew. The vessel was receiled and sparred from end to end. New masts, spars, and rigging of approved dimensions were fitted. A steam cargo-winch and a donkey-boiler were installed on board. The propeller-aperture has been closed up and new bilge-pumps fitted.

Schooner "Waiti."—This vessel has been practically rebuilt. The bottom has been renewed and almost the whole of the decks. Several new deck-beams have been fitted, and braced with heavy iron knees. New keelsons, deadwood, bulwarks, and stanchions, and a new taffrail, have also been fitted.

Sailing-vessel "Zingara."—This vessel was converted from a steamship to a sailing-vessel some years ago, and this is her first survey as a sailing-vessel. New fore and main masts have been fitted, also new main and fore sails. A new manhole compensating-ring and also a new safety-valve have been fitted to the donkey-boiler. Two rows of screwed stays, 1 in. diameter, have been fitted through the shell and firebox side plates. The boiler was then tested to double the working steam-pressure.

Registration of Shipping.

On the 31st December last there were on the register in the Dominion 174 sailing-vessels, of 22,216 tons register, and 382 steamers, of 64,943 tons register. At the end of the previous year there were 178 sailing-vessels, of 23,158 tons, and 379 steamers, of 65,388 tons. The number of seamen and boys employed on board was 3,292, as compared with 3,395 at the end of 1918.

Certificates of Survey.

Certificates have been granted to 314 steamers, 464 oil-engine vessels, and 59 sailing-vessels, as compared with 286 steamers, 476 oil-engine vessels, and 61 sailing-vessels in the previous year. Attached is a return of the vessels to which certificates have been issued.

Breaches of the Shipping and Seamen Acts.

Nine convictions were recorded during the year in prosecutions for breaches of the Shipping and Seamen Acts.

Examination of Marine Engineers.

Examinations for certificates of competency as marine engineers were held at the following places throughout the Dominion during the year: Auckland,* Wellington,* Christchurch,* Dunedin,* Invercargill,* Hamilton,* Greymouth,* Timaru,* Napier,* Nelson,* Queenstown, Hokianga, Russell,* Picton,* Te Kopuru,* Wanganui,* Havelock,* Kawhia, Mangonui, Pembroke, Awanui, Whangarei,* Whakatane, Thames, Gisborne,* Oparau, Tauranga,* Te Puke, Opotiki, Portage, and New Plymouth.

The total number of applicants who sat for examination amounted to 323. Of this number 278 passed their examinations, and forty-five failed.

* Places at which examinations have been held more than once during the year.

Examinations were held in the following grades: First-class marine engineer, second-class marine engineer, third-class marine engineer, river engineer for steam-vessels, first-class marine engineer for auxiliary-powered vessels, second-class marine engineer for auxiliary-powered vessels, and river engineer for auxiliary-powered vessels. A return giving names of successful candidates is appended.

Examination of Masters and Mates.

The number of candidates who sat total 118; of this number forty-four failed.

The difficulty of getting properly certificated second mates for sailing and auxiliary-powered ships still continues, and there does not appear to be much prospect of an improvement in the near future. There has also been some difficulty in getting certificated men for small launches, but I think this will soon disappear, as the men from the front are now resuming their civil occupations.

The examinations for masters and mates are carried out in Auckland by Captain Dykes, the Examiner who is stationed there; at Wellington by Captain Whiteford; and at Lyttelton by Captain Whiteford, who goes there for the purpose when required.

The following report on the work of examination of masters and mates is made by Captain W. Whiteford, Acting Principal Examiner:—

"The examination work has been carried out at Auckland by Captain Dykes, and at Wellington and Lyttelton by myself. A few candidates for river master have also been examined by the Harbourmaster at Gisborne, and by Captain Lake at Napier.

"The new regulations are now well understood, and candidates are showing a good knowledge of the new syllabus for foreign-going certificates, which includes spherical and plane trigonometry, meteorology, elementary science, naval architecture, a better knowledge of navigation, and the usual seamanship. With the mark system the examination is an excellent test of a candidate's practical knowledge, and good men who through nervousness in the examination-room often failed two or three times now have no difficulty in passing the first time. The examination-rooms in Wellington and Lyttelton are now up to date, and I am sure both the examination and the rooms will meet with the approval of the Principal Examiner of the Board of Trade when he inspects them during his colonial tour.

"A Morse-flashing machine will shortly be installed in each examination-room, which will eliminate the personal equation so prevalent during an examination in Morse signalling when the candidate and the examiner are in one room.

"By the inclusion in the syllabus of the 'General Notices' published in the Notices to Mariners candidates are required to keep pace with the times by having a knowledge of such subjects as wireless direction-finding, wireless time-signals, collection and distribution of meteorological data by wireless, and treatment of influenza.

"All examinations with the exception of that for river master have been discontinued at Dunedin.

"Two candidates failed in colour vision, and one in form vision.

"A return giving names of successful candidates, &c., is appended."

Deceased Seamen's Estates.

The estates of sixty-one seamen have been dealt with during the year. The amount received on account of them was £1,139 7s. 7d., and the amount paid to relatives and other claimants £844 18s. 8d. The sum of £49 10s. 8d. has been paid into the consolidated revenue for estates unclaimed for over six years. Appended is a statement of the estates.

Wrecks and Casualties.

During the year sixty-five inquiries were held, fifty-four of them being preliminary inquiries and eleven Magisterial. The appended return shows the casualties and an analysis thereof. Those on or near the coasts of the Dominion were sixty-three, of 54,778 tons register, as compared with fifty-six, of 28,659 tons, in the previous year. The number of lives lost was nineteen, as compared with thirty-six in the previous year. Eight were lost through the destruction by fire of the s.s. "Tainui"; the missing cutter "Janet" had ten on board, five being passengers; and a passenger disappeared from on board the s.s. "Mako" when off Hicks Bay.

Mercantile Marine Offices.

The work of these offices has been carried out in a very satisfactory manner, and the Superintendents and their staffs are deserving of commendation for the way in which they have carried out both their ordinary duties and special duties which have been placed upon them in consequence of the war.

Owing to the increase in the work of procuring seamen at Wellington an Assistant Inspector of Seamen has been appointed at that port.

The Department has had to withhold the discharge of a good many seamen who have deserted from or failed to join their ships.

Appended is a statement showing the number of seamen engaged and discharged at the various ports during the year, and the fees received for engagements and discharges. The number engaged was 21,094, and the number discharged 20,553. The fees received amounted to £2,809 15s. During the previous year the engagements were 20,459, and the discharges 19,663, the amount of fees being £2,463 1s. 6d. The transactions at the principal ports were—

	Engagements.	Discharges.	Fees. £	s.	d.
Auckland	6,723	6,627	904	2	6
Wellington	7,790	7,481	1,054	9	6
Lyttelton	2,102	1,888	284	5	6
Dunedin and Port Chalmers	2,272	2,470	298	19	6

During the previous year they were—	Engagements.	Discharges.	Fees. £ s. d.
Auckland	6,573	6,417	870 10 6
Wellington	7,385	6,907	960 19 0
Lyttelton	2,190	2,199	253 6 0
Dunedin and Port Chalmers ...	2,645	2,578	175 13 0

As in previous years, no fees were charged in respect of engagements and discharges on transports and hospital ships.

Appended is a statement showing the amounts paid under the provisions of section 6 of the Shipping and Seamen Amendment Act, 1911, to sick and injured seamen. The total is £13,163 8s. 8d., as compared with £16,617 8s. 9d. last year.

Harbours.

This Department has the control of harbours for which Harbour Boards have not been constituted, and the buoys and beacons at these places have been overhauled, cleaned, and painted under the direction of Captain Bollons, of the s.s. "Hinemoa." He has also attended to the coastal buoys and beacons during the vessel's periodical lighthouse trips.

A large number of plans of harbour-works, including wharves proposed to be constructed, has been submitted to and dealt with by the Department. Those which met the Department's requirements were approved by the Governor-General in Council in accordance with the provisions of the Harbours Act, 1908. A return of the Orders in Council giving the necessary approval is appended.

The sum of £783 3s. 3d. was collected for pilotage and port charges in respect of harbours under the control of the Department, as compared with £982 5s. 7d. in the previous year.

A return of the amounts collected at the various ports, including the amounts collected at ports under the control of Harbour Boards, is appended.

Appended is a report by the Marine Engineer on the works dealt with by him during the year.

Lighthouses.

The duties connected with the maintenance of the various lighthouses have been satisfactorily carried out during the year. The permanent staff has been practically restored to its pre-war strength, and there is not now such a difficulty in procuring men for permanent employment.

A new crane has been erected at Cuvier Island, and the material for one at Stephen Island has been landed and is awaiting re-erection. The automatic fog-signal which was formerly at Timaru has been erected at Tiritiri and is now in working-order. New winches have been installed at Cape Maria van Diemen to work the overhead conveyer between the island and the mainland. Repairs have been carried out to the dwellings and school at Nugget Point.

It has been decided to install automatic acetone lights at Tiritiri and Taiaroa Head in place of the incandescent lights at present installed, and the necessary apparatus has been ordered. The installation of these lights will result in a considerable saving in expenditure.

The dwellings at Cape Maria van Diemen are now very old and out of repair, so it has been decided to erect new ones; the material for the work is being assembled.

Captain Bollons, master of the s.s. "Hinemoa," who is also Inspector of Lighthouses, has inspected and reported on the various stations. I desire to place on record the great assistance which I have at all times received from him in lighthouse matters.

During the year two keepers retired on superannuation, one was transferred to another Department, eight resigned, one died, fourteen new keepers were appointed to fill vacancies existing, and two were dismissed.

Appended is a report by the Marine Engineer on the works dealt with by him during the year.

The amount of light dues collected was £32,164 8s. 8d., as compared with £24,721 5s. 9d. during the previous year. Appended is a return showing the amount collected at each port. Now that the war is over and the regular shipping services are being resumed, the amount of dues collected will no doubt soon come back to, if not exceed, what it was before the war.

Issue of Explosives Permits.

During the year 147 permits were issued at the Port of Wellington for the carriage of explosives on ships.

Meteorological and Weather Office.

The work of this division has been well maintained during the year. Mr. Bates attended the Meteorological Conference at Paris during the year, being absent from New Zealand for some months. The following is the report of Mr. Bates on the work of his office during the year:—

"The forecasting and reporting of the weather by the Weather Bureau, which in this country is connected with that well-organized and effective branch of the Public Service the Post and Telegraph Department, have been carried on as usual during the past year. Plans for the improvement and development of the service were prepared early in the year, but were postponed until after the British and Intercolonial Conferences were held. It is now hoped to give effect to them during the coming year, especially in the direction of utilizing local offices for matters of merely provincial interest. The equipment of stations at the wireless stations at Awarua and Awanui, as well as improvements at the chief centres, are proposed, in addition to the strengthening of the central office itself. More inspection and educational propaganda are urgently required for the expansion of the work and awakening public interest as to the usefulness of the forecast not only to shipping but to the practical life of the community.

"With regard to meteorological work in the exposition of the climate, the collation of statistics has gone along steadily year after year, but publication awaits a vote and final examination whenever it is decided to complete the records for the means, &c. Such a contingency as a fire destroying our papers at the present time would be a calamity; but if the statistics were published the damage would not be so complete or irremediable.

"Last year I reported that war conditions had caused increasing difficulties for many of our observers throughout the Dominion, and now, added to this, is a rapid change in ownership of stations, causing us to lose the services of rainfall observers in places where valuable standards have been established through long and reliable records. In many instances the newcomers do not appreciate the value of rainfall observations either to their own locality or to the Dominion at large, and, as the services are entirely voluntary, they do not wish to continue these regular daily observations.

"The shortage of paper has also had rather serious effects. The withdrawing of the names of the observers from the published reports has lessened the sense of personal responsibility and interest. Shortage of forms, and requiring the rainfall reporters to write for the necessary and regular supplies, have in some instances been the cause of serious breaks in the continuity of our records. More liberal and progressive methods must be adopted in making these periodic supplies, and if, unfortunately, form and envelope are lost or mislaid, there should be no difficulty in supplying another set. Moreover, a small payment might be made for observations, which are often of the utmost importance to engineering, agriculture, forestry, &c., in a young country like this.

"The British and International Conferences—reports upon which have already been furnished—were chiefly concerned with technical matters; but one important resolution concerned the registration of ships, and recommended legislation to the effect that each country should insist upon its shipping being equipped with proper meteorological instruments, and some provision made for recording and reporting weather conditions.

"Meteorological instruments used in the war were obtained in great quantities by representatives of other countries, but there was neither sufficient money nor authority to accept instruments in place of one or more of the hundred aeroplanes offered to this Dominion. We have not obtained supplies for several years, and it is hoped that the market may shortly recover in such a way that we may be able to obtain what is needed, particularly if aviation adds to the work and responsibilities of this office.

"My assistant, Mr. B. V. Pemberton, F.R.Met.Soc., carried on the work satisfactorily during my brief and hurried visit to the Old Country."

Fisheries.

A very valuable and comprehensive report by Mr. L. F. Ayson, Chief Inspector of Fisheries, also one by the Chairman of the Portobello Fish-hatchery Board on the working of the hatchery, for the year, are appended.

Thirty-eight convictions were recorded during the year in prosecutions for breaches of the Fisheries Act.

Report of Work done under the Inspection of Machinery Act.

The Engineer Surveyors of Ships and Examiners of Marine Engineers appointed under the Shipping and Seamen Act also act as Inspectors of Machinery, Examiners of Extra First-class Engineers, Examiners of Engine-drivers both stationary and locomotive, also Examiners of Winding-engine Drivers for Collieries under the Inspection of Machinery Act, and also examine tramway drivers under the Tramways Act.

New Boilers inspected.

This year there has been an increase of about 50 per cent. in the number of new boilers inspected. Most of the larger boilers have been made locally. The numbers of portable and traction boilers imported from abroad are still considerably below those of the pre-war period. During the construction of a large multitubular boiler in Southland an inspection of the shell-plates was made in order that a note could be taken of the brands on the plates. The brands, however, turned out to be quite contradictory and misleading. The plates were reported to have been tested, but satisfactory evidence of this could not be produced immediately. The interested parties were involved in considerable expense in cabling for the particulars. Importers and boilermakers would be well advised to procure certificates duly signed by the testing Surveyor for all material to be used in boiler-construction. The material in nearly all cases is examined by the Department's Inspectors and the brands checked with the certificates before the material is worked into the boiler. I shall be glad if facilities are given at the engineering-works for doing this. A large number of steam-pressure apparatus continues to be made of cast iron. In many cases the thickness of this material is far from being satisfactory. The surfaces are often flat, and without stays or ribs to support surfaces carrying pressure. Cast iron is now generally of much better quality than it used to be, but it is still looked upon with suspicion for large surfaces or high steam-pressures. Very often no information can be obtained by the Department of any tests. Manufacturers should note that particulars as to the quality of cast iron are as necessary as for wrought material. The tensile strength of good cast iron should not be less than 10 tons per square inch. The Department is always desirous of making full allowance for good material, but unless satisfactory evidence of the quality of the material can be produced either by documents or test-pieces the material can only be taken as of average quality.

The number of new boilers inspected during the year was 238; 112 of these were made in the Dominion and 126 were imported. The following table gives the districts in which the new boilers were installed, the horse-power, and also states whether they were made in the Dominion or imported:—

District.	Made in Dominion.		Imported.		Total.	
	Number.	Horse-power.	Number.	Horse-power.	Number.	Horse-Power.
Auckland	10	82¼	24	360¾	34	443
Auckland North	1	4½	2	27	3	31½
Auckland South	7	57¼	11	422½	18	479¾
Canterbury	20	59	14	30½	34	89½
Hawke's Bay	5	38½	35	259½	40	298
Marlborough	9	57	..	..	9	57
Nelson	2	16	2	32	4	48
Otago	6	37	10	373	16	410
Southland	1	2½	8	18	9	20½
Taranaki	9	25	4	105	13	130
Taranaki North	2	16½	2	27½	4	44
Timaru	4	60½	..	..	4	60½
Wellington	19	106½	6	10	25	116½
Wellington North	16	62	8	438	24	500
Westland	1	12	..	..	1	12
Totals	112	636½	126	2,103¾	238	2,740¼

Inspection of Boilers.

Boilers inspected during the year total 7,273. The staff was not able to inspect all that were due for inspection. Weather conditions in the country were not favourable for country work, and more time was taken in getting over the ground owing to bad roads in backblock districts.

Defects in boilers to the number of 453 were discovered, and of this number 248 were highly dangerous.

No boiler-explosion occurred during the year, which is very satisfactory, and I am satisfied that the Inspectors have dealt practically with all boilers on their merits. It is interesting in dealing with steam plants to note the change that takes place in material from year to year, and I endeavour, as far as possible, to have the same Inspector sent to the same district every year so that he may compare the change that has taken place. Decay takes place rapidly sometimes, from various causes, and if the waste is general great care has to be exercised in making an inspection.

Inspection of Gas-, Oil-, Water-, and Electric-driven Machinery, including Lifts.

During the year 18,551 machinery-inspections were made, which is an increase of nearly 3,000 on last year's work. This shows the forward movement made by those wanting a cheap and handy power, more especially in remote districts. The oil engine and motor is easily moved, and can be used for many purposes on farms, and can be run fairly well by the farmer himself. Most makers issue a handy booklet with instructions which deals with points that want more attention, which should be followed by the user.

The staff was unable to deal with all the machinery that had to be inspected during the year.

Fencing and Guarding of Machinery.

The usual amount of guarding has been done during the year, and no friction has arisen with the owners.

There were 1,229 notices to fence and guard machinery during the year, of which number 449 were dangerous.

Examination of Land Engineers and Engine-drivers.

Examinations have been held at all the places set out in the Book of Regulations for these examinations, and at many other centres to suit applicants in the country districts and steam-users. The shortage of engine-drivers due to the war should now disappear, and the requests for permission to run steam plants without having a certificated man in charge should not now be so numerous. It is difficult, however, for an owner in an isolated district to fill a vacancy immediately it occurs, as he may have to advertise and get a certificated man from a distance.

A complete list of the places where the examinations were held is as follows: Auckland,* Awanui, Blenheim, Caberfeidh, Carterton,* Christchurch,* Cromwell, Dannevirke,* Dunedin,* Eltham, Gisborne,* Greymouth,* Hamilton,* Invercargill,* Karamea, Kutarere, Levin, Manaia, Manakau, Masterton, Matamau, Napier,* Nelson,* New Plymouth,* Norsewood, Oamaru, Okato, Opotiki, Opunake,* Otaki, Owaka, Pahiatua, Palmerston North,* Pohokura, Raetihi, Raglan, South Norsewood, Stratford,* Takaka, Taumarunui, Tauranga, Thames, Timaru,* Wanganui,* Wellington,* Westport,* Whakatane, and Whangarei.*

* Places where more than one examination was held.

The examinations held were for extra first-class engineers, first-class engine-drivers, second-class engine-drivers, winding-engine drivers (steam and electric), locomotive- and traction-engine drivers, locomotive-engine drivers, and traction-engine drivers.

Reciprocal certificates were issued to applicants from other States as follows: Canada, 2; Transvaal, 2; Tasmania, 1: total, 5.

The total number who sat for the examinations was 501; of this number seventy failed.

Several new sets of examination-papers for first-class engine-drivers and other examinations were issued during the year to Examiners from the Head Office. All the questions set were of practical value to the applicants. Some of those who sat passed a very good examination, and they showed clearly that they had made a close study of their subjects. The appended return gives the names, &c., of successful candidates.

Examination of Electrical-tram Drivers.

Examinations for electric-tram drivers' certificates were held at Auckland, Christchurch, Dunedin, Invercargill, Napier, Wanganui, and Wellington. The number who sat for examination totalled 101, one out of this number failing. More than one examination was held at the places named, and special examinations were held to suit the convenience of the tramway service throughout the Dominion. The appended return gives the names, &c., of those who passed.

Board of Examiners.

The Board of Examiners, consisting of the Chief Inspector of Machinery of the Marine and Inspection of Machinery Department, the Engineer-in-Chief of the Public Works Department, the Inspecting Engineer of the Mines Department, and the Chief Electrical Engineer of the Public Works Department, with Mr. J. G. Macpherson as Secretary, sat at Wellington on eight days during the year.

Mr. Birks, who succeeded Mr. Parry as Chief Electrical Engineer for the Dominion when the latter resigned and went to Great Britain, was appointed a member of the Board during the year. The Board at its sittings dealt with many matters connected with requests to sit for examinations, and with numerous points raised by Examiners and applicants, and issued all the certificates to successful candidates.

Changes in the Staff during the Year.

Mr. George Allport, Secretary of the Department, left on the 31st December last on three months' leave of absence prior to retirement on superannuation. He left New Zealand on the 25th March on a trip to England, and it was with the deepest regret that news was received that he had died on the 28th March just prior to reaching Sydney. Mr. Allport joined the Service as a cadet in 1875, and had completed forty-five years' faithful and honourable service when he retired. The sincerest sympathy of the staff is extended to his widow and daughter in their great loss.

Captain H. S. Blackburne, Nautical Adviser and Principal Examiner of Masters and Mates, also retired at the same time, having reached the age-limit, but is being temporarily employed for two years to complete the compilation of certain nautical tables for the Government. Captain Blackburne has filled the position vacated for many years, and his decisions and advice at all times were very much valued by the Department. His interest in all questions connected with navigation problems is well known to all nautical men.

Captain G. G. Smith, Superintendent of Mercantile Marine at Wellington, retired on superannuation on the 31st March, having reached the age-limit. He filled the position with great credit for many years, and his judgment was highly valued by the Department and was considered at all times fair. Captain S. G. Stringer, Assistant Superintendent at Wellington, has been appointed to succeed him, and Captain J. W. Burgess, Surveyor of Ships at Wellington, succeeds Captain Stringer as Assistant Superintendent.

Owing to the considerable increase in the work of inspection, several transfers and new appointments in connection with the staff of Inspectors of Machinery were found necessary during the year.

Inspector S. N. Johnston was transferred from Hamilton to Dunedin as an additional Inspector for the Otago District, and Inspector J. Cable was similarly transferred from Palmerston North to Wellington. Messrs. R. Beveridge and H. McGregor were appointed Inspectors of Machinery at Hamilton and Palmerston North respectively to fill the vacancies caused by the aforementioned transfers. Messrs. H. S. Baldwin and E. Brown were appointed Inspectors and stationed at Wellington, and Messrs. D. Bell and E. Hargrave at Auckland and Christchurch respectively.

The new Taranaki North district was opened, with office at New Plymouth, and Inspector H. G. L. Noy, of the Wanganui office, was appointed to have charge of it. This partition of the large district formerly controlled from Wanganui has proved a success, making as it does for the more convenient control of the extensive district surrounding New Plymouth.

The opening of a District Office at Gisborne in the near future will be necessary, as this district is increasing in importance rapidly, and settlement is taking place in all parts of it.

Owing to my appointment as Secretary and retaining my old position as Chief Inspector of Machinery and Chief Surveyor of Ships, &c., I have combined the report, usually submitted by me as Chief Inspector of Machinery, &c., to the Secretary, with the general report of the Department this year.

I have, &c.,

Robert Duncan,

Secretary, Chief Surveyor of Ships, and Chief Inspector of Machinery.

The Hon. the Minister of Marine, Wellington.

The Chief Inspector of Fisheries to the Secretary, Marine Department.

Sir,— Marine Department, Wellington, 19th June, 1920.

I have the honour to present the following report on the fisheries for the year ended 31st March, 1920:—

During the year I visited the following fishing-grounds and fishing-ports, viz.: Bay of Islands, Kaipara, Whangarei, Hauraki Gulf, Great Barrier, Hawke's Bay, Cook Strait, Picton, Hokitika, Lyttelton, Kaiapoi, Lake Ellesmere, Timaru, Oamaru, Port Chalmers, Invercargill, Bluff, and Stewart Island. I also made special inspections of the oyster-beds at Bay of Islands, Mangonui, Whangarei, Great Barrier, and Hauraki Gulf; and also of the toheroa-beds along the coast north of Kaipara, the beds on the Ninety-mile Beach from Ahipara to Scott's Point, and on the beach from the Otaki River to north of the Horowhenua Lake.

During the year I visited New South Wales, Queensland, Victoria, and Tasmania for the purpose of getting first-hand information and a practical insight into the methods of artificial oyster-culture and State fishing and marketing by the State Governments in New South Wales and Queensland, and also the methods of packing and transport of fish from the fishing-grounds to market, and of forwarding to inland towns in all the States which I visited. A full report of my inspection and observations of the fisheries of the States which I visited has already been supplied to you.

From the reports and returns received from the Collectors of Customs and Inspectors of Fisheries at the various fishing-ports it would seem that there has been a considerable increase in the quantity and value of fish marketed in comparison with the previous year. Fishermen on the east coast as far north as East Cape lost a good deal of time on account of stormy weather, which affected their earnings to a considerable extent and kept the city markets specially short of fish for weeks at a time. Even with the higher prices charged the demand for fish is steadily on the increase, and the Government must face the question of taking such steps as will ensure a substantial increase in the fish-supply all over the Dominion. The continued short supply and high price of coal, benzine, nets, and netting-twine, &c., is undoubtedly adversely affecting the fish-supply; but even under normal conditions the catching-power is at present not sufficient to supply the increasing demand for fish, and an increase in the number and also in the size of all new fishing-vessels is necessary, with better facilities for marketing and distributing fish, in order to satisfactorily increase the supply of fish for the people of the Dominion. If private enterprise cannot provide the increased supply which is required, then the Government will have to consider the question of putting on a number of up-to-date fishing-vessels, capable of working any part of our coasts and in any depths where fish are most plentiful.

Rock-oysters.—The picking and sale of these oysters by the Department was continued last season. The picking commenced as usual on the 1st May, but, on account of the pickers employed on the Hauraki Gulf beds ceasing work when they were put on to pick the beds on Rangitoto Island, the season had to be closed at the end of July. The quantity of oysters picked during the three months for which the season was open was 7,256 sacks; of this number, 4,243 came from the Bay of Islands, 2,473 from the beds in the Hauraki Gulf, and 540 from the Great Barrier. The total quantity received at the oyster-depot at Auckland was 6,894 sacks, and 363 were sold locally at Russell. Of the quantity received at the depot, 5,896 sacks were sold in Auckland and 998 sacks were forwarded to other places. Of the quantity disposed of in Auckland, 1,560 sacks were sold at the depot in small parcels containing 4½ dozen each, at 1s. a parcel, and from 16 to 18 dozen each, at 3s. 6d. a parcel. These retail parcels realized £244 16s. 6d. more than would have been obtained had the oysters been sold by the full sack. This shows that the retail business, which enables people to go to the depot to get small quantities of oysters, is becoming more popular every year.

The work of replanting depleted areas and shifting oyster-rock from near high water down to and below half-tide was continued during the year at the Bay of Islands, and the beds there have been considerably extended by the work which has been done in this way during the last three years. The yearly increasing demand for oysters, however, makes it imperative that a comprehensive scheme of artificial oyster-culture should be taken in hand. There is no doubt that there are large areas in the north where extensive beds can be formed by adopting some of the Australian methods of oyster-culture best suited for the conditions in our bays and estuaries. Valuable work has been done since 1909 in the Hauraki Gulf and Bay of Islands by planting depleted areas with oyster-rock taken from other beds, and by shifting high-water oyster-rocks down to and below half-tide, but there is a limit to the work which can be done in this way, and the time has come when more scientific methods must be adopted for the purpose of extending the beds and increasing the oyster-supply. Our northern rock-oyster (*Ostrea cucullata*) is identical with the oyster which is so extensively cultivated in New South Wales and Queensland. It is really a subtropical species, the northern part of New Zealand being the southern limit of this oyster in this hemisphere, and our colder water and climate no doubt account for the poorer and rather uncertain seasonal fixing of oyster-spat on our New Zealand beds in comparison with the abundant and regular fixing which they get in the warmer waters and climate of New South Wales and Queensland. The poorer fixing of spat on our beds in turn influences the quantity of mature oysters which can with safety be taken for market each season.

Foveaux Strait Oyster-beds.—The quantity of oysters dredged from these beds last season was 21,394 sacks, containing approximately 1,283,640 dozen, valued at £13,371, of which 20,804 sacks, valued at £12,954, were sold in the Dominion, and 590 sacks, valued at £417, were exported to Melbourne. The oysters throughout the season were in first-rate condition, and the men employed dredging report that a good supply was obtainable from the beds which were worked.

Quinnat Salmon.—The run of these fish was again poor last season, and the efforts to collect eggs at Hakataramea were unsuccessful. I made a personal inspection of the main tributaries of the Waitaki and found that although very few fish came into the Hakataramea River, yet there were more spawning in the main tributaries of the Waitaki than in the previous year (1918). This year there has been a decided increase in the numbers which have gone up the Waitaki and its four large tributaries, and this would seem to be a clear indication that, whatever circumstances had affected their condition at sea during the last two years, the trouble is now being overcome, and, considering that a large portion of the millions of fry which were hatched from the large spawnings of 1916 and 1917 should be mature next season, we can with confidence look forward to a heavy run.

Acclimatization of Atlantic Salmon and other useful Fishes.—It is to be hoped that arrangements can be made to again take up the systematic importation of Atlantic salmon (*Salmo salar*) eggs this year, and also to seriously consider the recommendations made in my report of last year regarding the necessity for adopting a vigorous policy regarding the acclimatization of the Atlantic salmon and some of the other useful fishes which I mentioned in that report.

The following is a summary of the information supplied by Collectors of Customs and local Inspectors of Fisheries for the year :—

Hokianga.—The number of fishing-boats licensed was 9, employing 15 men. The varieties of fish caught are mullet, snapper, kahawai, and flounder. As they are sold only for local consumption, the quantity and value brought in during the year cannot be ascertained.

Russell.—Inspector Flinn reports an increase in the quantity of fish caught, and a good supply of the usual market fish has been easily obtained by fishermen. Kingfish and hapuku have been plentiful during the summer months. The "school" snapper were more numerous than usual this season, and were in as late as the third week in February. Forty-two boats were licensed for the year ended 31st December last, employing about 90 men, all of whom have made good wages. The total number of persons employed fishing, oystering, and whaling—that is, in connection with the industry generally—was about 160. While the regular markets for the fishermen employed here at present are the inland villages and Whangarei, yet when weather and steamers suit a considerable quantity is shipped to Auckland. A cool-storage plant at Russell would be of great assistance to the industry, and would mean large and regular quantities of fresh fish being sent to the Auckland market. The Inspector reports a very successful season at Messrs. Jagger and Cook's whaling-station at Whangamumu. Sixty-one humpback whales were caught, yielding 300 tons of oil and 56 tons of bonedust; total value, £10,300. For the three months for which the oyster season was open for picking, 4,243 sacks of oysters were taken from the Bay of Islands beds; 362 sacks of these were sold locally, and the balance, 3,881, were shipped to the Auckland Government Oyster Depot. The high-water oysters which were shifted down to half-tide during the past two years have grown and improved so well that most of them are now fit to pick for market. This method of improving the beds was continued last season, and the work done means a considerable extension of the oyster area on the Purerua and Kerikeri beds. The beds in the Whangarei Harbour are without doubt the best-stocked beds north of Auckland; the whole beach from low- to high-water mark is covered with oysters, a considerable quantity of which should be mature and ready to pick for market next season (1921). The convictions obtained for poaching oysters from these beds last summer have had a very good effect, as I could not see any traces of recent poaching when I last visited the beds. The total weight of fish caught during the year was approximately 3,450 cwt.; value, about £3,100. The wholesale price of fish here varies considerably: Mullet averages about 3s. a dozen, snapper 4s., flounder 2s 3d., and hapuku and other fish about 2d. per pound.

Whangarei.—The fish taken on the local grounds are snapper, mullet, flounder, hapuku, and red cod. The total quantity of all kinds brought in was approximately 800 cwt.; value, about £1,500. Ten boats were licensed, employing about 15 men. The oyster-beds are looking remarkably well, and from present appearance it is very probable that a quantity can be taken for market next season.

Auckland.—The Inspector reports that during the year there were 21 boats fishing from Auckland, employing 45 fishermen, and 6 steam trawlers, employing 39 men. The number of persons employed in connection with the industry in other ways than actual fishing and oystering was 104. The kinds of fish taken were similar to those caught in other years. Approximately, the total quantity of fish brought in during the year was 3,170 tons; value, about £80,413. There are six fish-curing places in Auckland. The Inspector states that all kinds of fish are becoming scarce in the Auckland District. During the three months for which the oyster-beds were picked last season 2,475 sacks were taken from the beds in the Hauraki Gulf, and 540 from the beds at Great Barrier. There has been a fair fixing of young oysters on some parts of the Hauraki Gulf beds. The poor fixing of spat which has been general over these beds for several years in succession has made it necessary to go over the beds lightly each picking season and restrict the quantity which is taken off for market.

Thames.—During the year fish have been fairly plentiful, but fishing operations have been considerably hindered on account of the large quantities of jellyfish which came into the Gulf and made it impossible for the fishermen to use their nets. A return of the quantity and value of fish brought in has been obtained from only two of the three fish-merchants who receive the fishermen's catches. It is therefore incomplete, and only serves the purpose of making up the approximate total quantity and value of fish landed throughout the Dominion during the year. The quantity received by the two wholesale fish-merchants was 856 tons 16 cwt. 3 qr. 24 lb., valued at £20,392.

Kaipara.—The Inspector reports an improvement in the quantity of fish caught in comparison with the previous year. Mullet have been particularly plentiful, and flounder have been caught in larger quantities than for several years. The number of boats engaged in fishing is 27, employing 45 fishermen. The quantity of fish brought in from the local fishing-grounds was 8,220 cwt.; value, £9,736. The fish-canning factory at Helensville packed 980 cwt. of mullet, valued at £1,062.

Tauranga.—The number of boats licensed for fishing during the year was 29. A number of these are pleasure-fishing excursion launches, and the owners license their boats so that they can sell their surplus fish. There are 20 men engaged in fishing. The quantity of fish brought in is given approximately at 120 cwt.; wholesale value, about £250.

Gisborne.—Fishing here is much the same as in past years, but is greatly hampered through the scarcity of benzine, coal, and high price of nets and twine. There are 24 boats and 2 steam trawlers fishing, employing 51 men. The fish taken are tarakihi, snapper, gurnard, sole, and flounder, and the quantity brought in during the year was 2,169 cwt.; value, £5,160.

Napier.—The Inspector reports that there has been a marked improvement in the catches this year as compared with the previous one, owing principally to the favourable weather experienced generally through the year, which allowed the vessels to work without much interruption. The westerly weather experienced during the summer months was very favourable for flat fish, and although at no time were there any exceptional catches, yet the fishing was very regular. Summarized, the last year's result can be considered a very good one and much above the average of recent years. At times when fish have been plentiful and conditions favourable for trawling coal has been unprocurable, thereby affecting the returns. The number of trawlers engaged in trawling was 9, employing 40 men; also 20 oil-launches, employing 40 men, and 44 row-boats, with 60 men. The following is a return of the quantity and value of fish taken: 5,457 cwt. flat fish (valued at £2 10s. per hundredweight), £13,642 10s.; 11,915 cwt. round fish (valued at £1 5s. per hundredweight), £14,893 15s.; 12,000 lb. whitebait (valued at 2s. 6d. per pound), £1,500; 450 sacks crayfish (valued at £1 10s. per sack), £675; 300 sacks cockles and pippies (valued at 15s. per sack), £225: total, £30,936 5s.

New Plymouth.—The most of the fish required to supply the town and district comes from Auckland. The coast of Taranaki is so exposed for the small vessels used by the local fishermen that the retailers cannot rely on getting the supplies they need from them. The number of boats licensed for fishing was 34, employing 58 men. The majority of the men are partially employed at other work and only fish occasionally. The Collector of Customs, who supplies the report, estimates the quantity of fish brought in by local boats at 200 cwt.; value, about £175.

Wanganui.—Blue cod, hapuku, snapper, flounder, kahawai, mullet, barracouta, and gurnard are the fish caught on the local fishing-grounds. There are 17 boats engaged in fishing, employing 18 men. The quantity of fish brought in during the year was 357 cwt.; value, £850 10s.

Foxton.—The principal fish taken are flounder, snapper, and whitebait. Thirteen row-boats for river fishing and one launch were licensed, employing 20 fishermen part of the year. The quantity of fish caught was about 200 cwt. (principally flounder and whitebait), valued at about £560.

Wellington District.—The local Inspector, who visited all the fishing-stations in the district during the year, reports an increase in the quantity and value of fish brought in from the local fishing-grounds, and also an increase in the number of boats and men engaged in fishing. The Cook Strait fishermen lost a considerable amount of time on account of stormy weather. Fishermen complain of the difficulty in obtaining, and the high cost of, benzine, nets, rope, twine, &c., which hinders fishing operations, lessens their earnings and the quantity of fish brought in. Fish generally have been fairly plentiful. The warehou season was a particularly good one, and many big catches were made in the bays round Wellington. The number of launches licensed and engaged in fishing was 85 and 1 steam trawler. The number of men engaged in fishing was 221, and 134 were employed in other ways in connection with the industry. The total weight of all kinds of fish brought in is given at 17,100 cwt., valued at £23,940.

Picton.—The number of boats engaged in fishing was 17 launches and 1 steam trawler, employing about 25 fishermen. There were 3 specially constructed launches engaged in whaling, 47 humpback whales being taken during the season, yielding 235 tons of oil, valued at £8,225. The quantity of fish brought in is given as 2,100 cwt., valued at £2,600.

Wairau.—Ten launches and 16 men were engaged in fishing, and 4 men were employed in other ways in connection with the industry. The kinds of fish caught were blue cod, snapper, garfish, moki, ling, flounder, sole, tarakihi, kahawai, hapuku, red cod, and crayfish. The quantity caught was 530 cwt.; value, £800.

Nelson.—There were 61 boats and launches and 1 steam trawler licensed, and the number of men exclusively engaged in fishing is given as 20. The report states that by far the greater number of licensed fishing-boats are owned by settlers in outlying districts, who only fish in their spare time and who license their boats so that they can sell their surplus catches. The kinds of fish caught are snapper, flounder, moki, butterfish, blue cod, gurnard, kahawai, and crayfish. The quantity of fish of all kinds caught during the year is given as about 820 cwt., and 300 dozen crayfish, valued at £935. The report states that the chief reason why the fishing industry does not progress at Nelson is the absence of suitable marketing conditions and the want of cool storage for fish at the Port.

Westport.—The report supplied by the Collector of Customs states that the season was a very good one for whitebait and a fairly good one for flounder. There were 9 boats licensed for fishing, and 10 fishermen engaged in fishing, and 10 others employed in other ways connected with the industry. The quantity of all kinds of fish caught, including 775 cwt. of whitebait, was 1,456

cwt.; value (including twenty-five sacks of crayfish), £3,636. The principal fish marketed were snapper, hapuku, kahawai, herring, flounder, sole, crayfish, and whitebait. There are two whitebait-canneries at this port.

Greymouth.—The number of fishing-boats licensed was 12 and 2 motor-launch trawlers. There were only 2 men employed permanently in fishing and 20 casual fishermen, and 6 men employed at the whitebait-cannery. The most of the fish sold in Greymouth is brought in by the Westport trawler; her catches are not included in the return of fish supplied. The quantity of fish caught locally is given as 124 cwt., valued at £241. There is one whitebait-cannery at Greymouth.

Hokitika.—Whitebait is the principal fish caught; flounder, herring, snapper, and kahawai are taken in limited quantities. Three boats were engaged in fishing, employing 4 men, and during the whitebait season about 100 men were engaged catching by means of set-nets. No boats are required for taking whitebait in this way. There are two canning-factories, employing 8 men in the season. The quantity of all kinds of fish taken was 895½ cwt., valued at £4,185.

Kaikoura.—Trumpeter, groper, kingfish, ling, butterfish, and blue cod are the principal kinds caught on the local grounds. The number of launches licensed and engaged in fishing during the year was 23, employing 48 men, 4 others being employed ashore in connection with the fish-freezer. The weight of fish caught was about 7,232 cwt., representing a value of £14,000. Two oil-launches were engaged in whaling. Eleven humpback whales were taken during the season, and yielded about 40 tons of oil, valued at £1,120.

Rangiora.—The catch of whitebait for the year shows an advance on the previous season. The quantity of all kinds of fish taken was about 95½ cwt., valued at £1,093.

Kaiapoi.—The fishing season was an average one. There are only 3 men permanently fishing; all the others are whitebait-fishers and only work in the season when these fish are running. Twenty-four boats were licensed, and 24 men employed in fishing. The quantity of fish taken, mostly whitebait, was 340 cwt., valued at £2,000.

Southbridge.—Flounder are the principal fish taken in Lake Ellesmere. The fishermen, and wholesale merchant in Christchurch who receives all the fish, report that it has been the best year for flounder in twenty years. The fish commenced running early in the summer and continued well on in April. During that time good catches were made. Twenty-four boats were licensed, employing 30 fishermen, while 10 men were employed in other ways in connection with the fishing. The total quantity of flounder taken for the season from October to 31st March is given as 4,159 cwt., valued at about £5,823.

Lyttelton and Sumner.—During the year 5 motor-launches and 1 steam trawler, employing 14 men, and 11 small boats, employing 11 men, were engaged in fishing, and 4 others were employed in various ways connected with the industry. The total quantity of fish caught was 9,500 cwt., valued at about £13,300.

Akaroa.—The Inspector strongly recommends the erection of a fish-freezer and better transport facilities to the Christchurch market, as this would no doubt lead to an increase in the number of fishermen and would allow them to work full time, which would not only increase their earnings but also increase the quantity of fish sent to market. The number of fishing-boats licensed was 13, employing 26 men. The total quantity of fish caught was 3,900 cwt.; value, including 400 bags of crayfish, £5,380.

Christchurch.—The fishing registers show that 113 boats were licensed during the year in the Christchurch district. The following is a list of the boats registered and men employed fishing: Lyttelton and Sumner, 11 boats and 6 trawlers, employing 25 men; Akaroa, 13 boats, employing 26 men; Kaikoura, 23 boats, employing 48 men; Southbridge, 24 boats, employing 30 men; Kaiapoi and Styx, 24 boats, employing 24 men; Rangiora, 18 boats, employing 22 men.

Timaru.—The return given shows a considerable decline in the quantity and value of fish for the year, and report states that fish were not so plentiful on the usual grounds as during the previous year, and on that account several boats have ceased fishing. The number of boats licensed was 17; of that number 3 are steam trawlers. The number of men engaged in fishing is 32, and 5 others are employed in other ways. The quantity of fish caught is given at 3,000 cwt., valued at £6,100.

Oamaru.—The report received states that compared with last year there has been an increase this year in the quantity of all fish, with the exception of warehou and barracouta. The industry is handicapped by the high cost of benzine and gear, together with the slow and costly transport to the chief market, Christchurch. There are 9 boats fishing, employing 13 fishermen. The following is the quantity of all kinds of fish brought in—viz., 3,274 cwt., valued at £2,882.

Moeraki.—The Moeraki fleet consists of 25 boats, employing 34 men. The total quantity of fish brought in during the year was 3,095 cwt., and 248 sacks of crayfish, valued at £3,592.

Otago District.—The Inspector reports that for about the first eight months of the year unsettled weather hindered the operations of the line fishermen and trawlers, and in consequence there was frequently a serious shortage of fish in the Dunedin market, and prices at times were exceptionally high. Towards the latter part of the year weather conditions improved and fish were plentiful. On several occasions the Dunedin market was unable to cope with the supply. With cool-storage facilities fishermen could fish full time in good weather and hold over any surplus which the Dunedin market could not take for times of scarcity—that is, when bad weather prevented them going out. Flounder were fairly plentiful through the season, and the seine men have had a fairly good year. There are 74 boats engaged in line and net fishing, and 2 steam trawlers and 7 oil-engined launches engaged in trawling. There are 149 men engaged in fishing, and 130 otherwise employed in connection with the industry. The total weight of fish brought in during the year is estimated at 40,980 cwt., valued at £49,176. There are one fish-canning factory and eleven curing-sheds in the district.

Invercargill.—The Collector of Customs gives the following information: The number of boats engaged in fishing is 4, employing 6 fishermen. The kinds of fish taken are flounder, mullet, red cod, trout, and whitebait. The quantity brought in for the twelve months was 1,033 cwt., valued at £1,434.

Bluff.—The local Inspector reports oysters are plentiful and in the best of condition. The intercolonial service is now restored to a certain extent, and this enables the export of fish and oysters to Melbourne. Fifty-seven vessels are engaged in connection with the industry. These comprise steam trawlers, auxiliary cutters, and oil-launches, employing about 115 men. The quantity of all kinds of fish brought into Bluff was 6,587 cwt., valued at £12,997. The total oyster catch was 21,394 sacks; wholesale value, £13,371.

Stewart Island.—The return from Stewart Island shows that 25 fishing-boats were licensed for the year, employing 51 fishermen, and 4 other men were otherwise employed. The total quantity of fish caught for the year is given as 3,891½ cwt., valued at £5,155 15s. Fish were fairly plentiful through the year and good average catches were made.

Chatham Islands.—The number of boats licensed for the year was 13, employing about 24 men, with another 10 men employed in connection with the fisheries otherwise than in actual fishing. The only kinds of fish caught are blue cod and hapuku. The Inspector again strongly urges the necessity for a fishermen's settlement on the islands, as it would no doubt be of great advantage to the industry, as it would mean that in time a permanent fishing population would be established. A great deal of time is lost by the fishermen on account of the frequent spells of bad weather and heavy seas, and at such times these men are thrown absolutely idle, whereas if each family had sufficient land to keep a cow or two and have a garden their living-conditions would be very much improved. The following quantity of fish was caught during the year, viz.: Blue cod, 2,932¾ cwt., valued at £2,737 10s.; groper, 216 cwt., valued at £125 15s.

Returns.—The following returns are appended herewith, viz:—

(i.) The quantity of oysters taken from the various beds, the quantity disposed of in the Dominion, the quantity exported, and total value.

(ii.) The total quantity and value of fish imported into and exported from New Zealand during the year ended 31st December, 1919.

(iii.) The number of whales taken at each whaling-station, the species taken, and the quantity and value of oil, bonedust, or fertilizer produced.

(iv.) The number of steam trawlers, oil-engine trawlers, and other vessels employed in net and line fishing, with the number of fishermen employed, and approximately the total number of persons engaged in the fishing industry at each port, for the year ended 31st March, 1920.

(v.) The various kinds of fish caught, and approximately the total quantities and value of fish landed at the different fishing-ports, for the year ended 31st March, 1920.

I have, &c.,
L. F. Ayson,
Chief Inspector of Fisheries.

The Secretary, Marine Department, Wellington.

Oysters.

Locality.	Disposed of in Dominion.	Exported.	Total Number.	Total Value.
	Sacks.	Sacks.	Sacks.	£ s. d.
Foveaux Strait	20,804	590	21,394	13,371 0 0
Rock-oysters.				
Bay of Islands	4,243			
Hauraki Gulf	2,473	...	7,256	5,330 14 6
Great Barrier	540			
Total	...	...	...	18,701 14 6

Return showing the Total Quantity and Value of Fish imported into and exported from New Zealand during the Year ended 31st December, 1919.

FISH IMPORTED.

—	Quantity.	Value.
Anchovies, salted (in bulk)	Nil	Nil.
Oysters, fresh	Nil	Nil.
Other fish, fresh or frozen	Nil	Nil.
Fish, preserved in tins	2,559,569 lb.	£119,334
Fish, smoked, dried, pickled, and salted	590 cwt.	£2,265

FISH EXPORTED.

—	New Zealand Produce.		Not New Zealand Produce.	
	Quantity.	Value.	Quantity.	Value.
Anchovies, salted (in bulk)	Nil	Nil	Nil	Nil.
Oysters, fresh	29,347 doz.	£342	Nil	Nil.
Other fish, fresh or frozen	4,080 cwt.	£7,271	Nil	Nil.
Fish, preserved in tins	156,837 lb.	£10,106	340,907 lb.	£13,876
Fish, smoked, dried, pickled, and salted	19 cwt.	£48	14 cwt.	£77

Whaling.

Whaling-station.	Number of Whales taken.	Species.	Yield of Oil.	Quantity of Bone-dust or Fertilizer produced.	Total Value.
			Tons.		£ s. d.
Whangamumu... ...	61	Humpback ...	300	56 tons bonedust	10,300 0 0
Marlborough Sounds and Cook Strait	47	,, ...	235	...	8,225 0 0
Kaikoura	11	,, ...	40	...	1,120 0 0
Totals	119	...	575	...	19,645 0 0

Table showing the Number of Steam Trawlers, Oil-engine Trawlers, and other Vessels employed in Line and Net Fishing, with the Number of Fishermen employed, and approximately the Total Number of Persons engaged in the Fishing Industry at each Port for the Year ending 31st March, 1920.

(Compiled from the returns given in the District Inspectors' reports.)

Name of Port.	Steam Trawlers.	Oil-engine Trawlers.	Line- and Net-fishing Vessels.	Number of Fishermen employed.	Persons other than Fishermen employed.	Total Number of Persons employed.
Hokianga	..	..	9	15	..	15
Russell	..	..	42	90	70	160
Whangarei	..	..	10	15	..	15
Kaipara	..	..	27	45	6	51
Auckland	5	..	21	84	104	188
Thames	..	..	60	50	20	70
Tauranga	..	..	29	20	..	20
Gisborne	2	..	24	51	3	54
Napier	9	..	64	140	..	140
New Plymouth	..	..	34	58	10	68
Wanganui	..	..	17	18	2	20
Foxton	..	..	13	13	13	26
Wellington	1	..	85	208	121	329
Picton	1	..	17	25	..	25
Blenheim	..	..	10	16	4	20
Nelson	1	..	61	20	..	20
Westport	1	4	9	10	10	20
Greymouth	..	2	12	22	6	28
Hokitika	..	..	3	104*	8	112
Kaikoura	..	..	23	48	4	52
Rangiora	..	..	18	22	..	22
Lyttelton and Sumner ..	1	5	11	25	4	29
Akaroa	..	..	13	26	..	26
Southbridge	..	..	24	30	10	40
Kaiapoi and Styx	..	..	24	24	..	24
Timaru	3	..	17	32	5	37
Oamaru	..	..	9	13	..	13
Moeraki	..	..	25	34	..	34
Dunedin and Port Chalmers ..	2	7	74	149	130	279
Invercargill	..	..	4	6	16	20
Bluff	3	..	54	100	15	115
Stewart Island	..	..	25	51	4	55
Chatham Islands	..	..	13	14	10	34
Totals	29	18	881	1,588	575	2,161

* One hundred of these employed whitebaiting without boats.

Table showing the Various Kinds of Fish caught and approximately the Total Quantities and Value of Fish landed at the different Fishing-ports for the Year ended 31st March, 1920.

(Compiled from the figures given in the District Inspectors' reports for the year.)

Name of Port.	Kinds of Fish caught.	Quantity.	Total Value. £ s. d.
Hokianga ..	Mullet, snapper, flounder, and kahawai	No return supplied.	
Russell	Mullet, snapper, flounder, hapuku, kingfish, tarakihi, and kahawai	3,450 cwt.	3,100 0 0
Whangarei ..	Snapper, mullet, flounder, hapuku, and red cod	800 cwt.	1,500 0 0
Kaipara ..	Mullet, flounder, snapper, trevally, and gurnard	820 cwt.	9,736 0 0
Auckland ..	Snapper, flounder, mullet, trevally, kahawai, john-dory, gurnard, kingfish, and hapuku	63,400 cwt.	80,413 0 0
Thames ..	Snapper, flounder, sole, kahawai, garfish, and crayfish ..	17,136 cwt.	20,392 0 0
Tauranga ..	Snapper, hapuku, trevally, kahawai, rock-cod, garfish, herring, kingfish, flounder, and crayfish	120 cwt.	250 0 0
Gisborne ..	Tarakihi, snapper, sole, and flounder	2,169 cwt.	5,160 0 0
Napier	Sole, flounder, brill, snapper, gurnard, butterfish, hapuku, moki, trumpeter, ling, barracouta, kingfish, trevally, warehou, and crayfish	17,479 cwt.	30,036 0 0
	Crayfish, cockle, and pipi	750 sacks	900 0 0
New Plymouth ..	Snapper, hapuku, blue cod, flounder, ling, gurnard, kahawai, herring, and crayfish	200 cwt.	175 0 0
Wanganui ..	Blue cod, hapuku, snapper, flounder, kahawai, mullet, barracouta, and gurnard	357 cwt.	850 10 0
Foxton	Flounder, snapper, and whitebait	200 cwt.	560 0 0
Wellington ..	Snapper, hapuku, hake, kingfish, warehou, moki, tarakihi, gurnard, butterfish, blue cod, kahawai, flounder, sole, and crayfish	17,100 cwt.	23,940 0 0
Picton	Groper, moki, barracouta, flounder, sole, brill, herring, trevally, kingfish, blue cod, red cod, snapper, butterfish, ling, tarakihi, warehou, gurnard, kahawai, and crayfish	2,100 cwt.	2,600 0 0
Blenheim ..	Blue cod, rock-cod, red cod, snapper, garfish, moki, ling, flounder, sole, tarakihi, butterfish, kahawai, groper, whitebait, and crayfish	530 cwt.	800 0 0
Nelson	Snapper, flounder, sole, moki, butterfish, blue cod, gurnard, and kahawai	820 cwt.	935 0 0
	Crayfish	300 doz.	
Westport ..	Snapper, blue cod, kahawai, herring, flounder, sole, hapuku, crayfish, and whitebait	1,456 cwt.	3,636 0 0
Greymouth ..	Sole, hapuku, red cod, snapper, flounder, and whitebait ..	124 cwt.	241 0 0
Hokitika ..	Whitebait, herring, kahawai, flounder, mackerel, and snapper	895½ cwt.	4,185 0 0
Kaikoura ..	Groper, trumpeter, kingfish, ling, butterfish, and blue cod ..	7,232 cwt.	14,000 0 0
Rangiora ..	Whitebait, flounder, herring, and red cod	95½ cwt.	1,093 0 0
Lyttelton and Sumner	Groper, ling, red cod, conger-eel, flounder, sole, trevally, herring, garfish, butterfish, moki, and barracouta	9,500 cwt.	13,300 0 0
Akaroa	Groper, blue cod, red cod, trevally, moki, butterfish, flounder, sole, ling, tarakihi, and barracouta	3,900 cwt.	5,380 0 0
	Crayfish	400 bags	
Southbridge ..	Flounder, herring, and red cod	4,159 cwt.	5,823 0 0
Kaiapoi and Styx	Whitebait and flounder	340 cwt.	2,000 0 0
Timaru	Groper, sole, flounder, brill, ling, red cod, barracouta, and gurnard	3,000 cwt.	6,100 0 0
Oamaru	Groper, red cod, blue cod, moki, warehou, barracouta, ling, flounder, and gurnard	3,274 cwt.	2,882 0 0
Moeraki	Groper, red cod, blue cod, moki, warehou, barracouta, and ling	3,095 cwt.	3,592 0 0
	Crayfish	248 sacks	
Dunedin and Port Chalmers	Groper, kingfish, ling, barracouta, blue cod, red cod, moki, trumpeter, bream, tarakihi, trevally, mullet, garfish, kahawai, gurnard, sole, flounder, brill, and skate	40,980 cwt.	49,176 0 0
Invercargill ..	Flounder, mullet, red cod, trout, and whitebait	1,033 cwt.	1,434 0 0
Bluff	Blue cod, red cod, groper, flounder, trevally, and moki ..	6,587 cwt.	12,997 0 0
Stewart Island ..	Blue cod, trevally, trumpeter, groper, and moki	3,891½ cwt.	5,155 15 0
Chatham Islands ..	Blue cod and hapuku	3,148½ cwt.	2,863 5 0
	Totals	219,392 cwt.	315,205 10 0

The CHAIRMAN, PORTOBELLO MARINE FISH-HATCHERY, to the SECRETARY, MARINE DEPARTMENT.

SIR,— Dunedin, N.Z., 26th June, 1920.

I have the honour, on behalf of the Board of the Portobello Marine Fish-hatchery, to submit the following report of the work carried on at the hatchery during the twelve months ended 31st March, 1920.

Owing to the conditions prevailing throughout the world since the termination of the Great War it has not been possible to resume any work connected with the introduction of food fishes, nor is there any prospect of the resumption of this work for some time to come. Until there is a great increase in the available amount of overseas shipping, and a corresponding reduction

in freight, the expense of bringing out a fresh stock of fish or crustacea will be very great. When such work can be attempted it is very desirable that an importation of young turbot, of lobsters, and of European edible crabs should be made. There is no record of any result so far from past efforts to introduce these species, but the conditions under which all three experiments have been carried out point, as far as they go, and as far as we can judge, to ultimate success. In some cases of successful naturalization of animals in New Zealand—*e.g.*, quinnat salmon—success has only followed repeated and sustained efforts. In the case of European turbot at the Portobello Hatchery only one attempt has been made—in 1913—to introduce this species. Over 90 per cent. of the original fish landed were liberated in the sea when they were well grown and sexually mature, and when they would be comparatively free from the risk of destruction by their enemies. If they kept together at all the chances are that they have produced and set free many millions of ova.

Larvæ of the European lobster (*Homarus vulgaris*) have been set free every season for the last thirteen years, while several mature lobsters were liberated in Otago Harbour some years ago. Between one and two millions fry have thus been distributed, and it is difficult to believe that there are not very numerous examples of these crustacea in our waters.

Similarly, vast numbers of the larvæ of the European edible crab (*Cancer pagurus*), estimated at about thirty-five millions, have been liberated, while the small remaining stock of adults was also set free. The same probabilities exist as in the case of the lobsters.

In introducing in the future more foreign fish and crustacea it is desirable that effort should be concentrated upon the three species which have already been experimented with until some measure of success has been assured.

The following statements are taken from the annual report made to the Board by Mr. W. Adams, curator of the hatchery:—

"The stock of turbot in the tanks now stands at fourteen. All the fish appear to be in the best of condition, although they have not increased in length (maximum 23 in.) during the past year. One fish died early in the year. The cause of death was an ulcer which had formed on the under-side. The fish are examined frequently, and all care is taken to prevent fungoid disease. There are no signs of development of the ovaries, and I do not think that there is any likelihood of the fish spawning while confined in the tanks."

Two comments may be made on this statement. It is now considered to be the case, judging from the records of several hatcheries and biological stations, including Portobello, that many species of fish are unable to extrude their ova except at considerable depths in the sea. Pressure of water seems to be necessary, and in aquarium ponds and tanks the ova are retained owing to the lack of this pressure. The second point is that fish in confinement reach a certain size and then cease to grow. This has been observed both in connection with the turbot and with native flounders which have been measured for some years past. It may be interesting here to record that Atlantic salmon (*Salmo salar*) retained many years ago for breeding purposes in the Clinton Hatchery grew to about 10 lb. weight and then ceased to increase in size.

"The stock of lobsters has decreased from seventeen at the time of my last annual report to twelve. Three died from injuries received shortly after casting, and two from other causes. Seven females, which were carrying full bunches of eggs, hatched out their broods in December. I estimate the number of larvæ produced to be 105,000. The whole stock have now cast their shells, and several of the females are again carrying eggs.

"As much time as possible is spent in line fishing and trawling on the grounds off Otago Heads and Cape Saunders. On the outside of the cod-end of the trawl-net a small-mesh net is fitted. This enables us to secure a much larger variety of small fish and of crustacea than we could obtain by using only the regulation-size mesh. The stomachs of all fish taken are examined and the contents noted. All rare specimens are preserved.

"Records of the growth of the common flounder, sole, tarakihi, and wrasse are still being continuously taken.

"Surface tow-nettings are taken from the wharf at regular intervals. There is now a large accumulation of this material waiting to be worked out.

"An interesting experiment now being tried at the station is the rearing and cultivation of the southern rock-oyster (*Ostrea tatei*). One of the outside ponds is being utilized for this purpose. Slabs of reinforced concrete, perpendicularly attached to racks, have been placed right across the pond. Just before the spawning season a number of oysters were placed in the pond. The most difficult part of the experiment has been the keeping of the slabs free from marine growth. Slime or weed would stifle the young oysters, or would prevent the spat from becoming attached. With the exception of picking off the weed nothing could be done in the way of cleaning the slabs while the oysters were spawning. I would suggest that during the coming season a number of slabs be placed in a horizontal position so that at least the under-side would be free from marine growth."

The effect of the sunlight on the water of the shallow ponds is to encourage an excessive growth of algæ, especially of filamentous forms, and the spores of these attach themselves to suitable surfaces in vast numbers. Probably the most effective method of protecting the surface of the concrete plates during the spawning season of the oysters will be to cover a portion of the pond for two or three months with a fairly close roof, and this will be tried during the coming season. The southern rock-oyster is quite distinct from the Auckland species (*Ostrea glomerata*) in external characters. The animal itself is about the same size, and of the finest quality, but with a smaller shell. The species used to be very common in Otago Harbour, but owing to constant picking is now somewhat uncommon. It has established itself somewhat freely in some of the hatchery-ponds. It has been suggested that the Auckland rock-oyster should be tried at the Portobello Hatchery, but the natural range of the species is from the Hauraki Gulf northwards, and it certainly would not thrive in the colder southern waters.

In previous annual reports of the hatchery reference was made to the desirability of liberating marked fish in order to ascertain, if possible, their migratorial movements. It was proposed to confine the experiment at first to one species, the common sole (*Peltorhamphus novæ-zealandiæ*). The experiment was never carried out on account of the difficulty of getting suitable marking disks or tags. The same difficulty still exists, but it is hoped that the manufacture of such disks—formerly confined to Germany—may be taken up again.

Meanwhile a new departure has been made since the commencement of the year in liberating drift bottles in order to ascertain the direction of the ocean currents off Otago Heads. The bottles are loaded with concrete so as to float with as little surface as possible exposed above the water. In each is placed a slip of paper stating when and where the bottle was sent adrift, and the finder is asked to fill in the date when and the locality where the bottle was picked up, and to enclose the slip in the stamped envelope, which is addressed to the Honorary Secretary of the Board, and to post it. The top of the bottle is then dipped in hot pitch so as to make it water-tight and to protect the metal cap from the action of the sea-water. The experiment is yet in its infancy, but already about 21 per cent. of the bottles liberated have been recovered, mostly to the north of Blueskin Bay.

Mr. Broadley's duties as Inspector of Fisheries for Otago have taken up a good deal of time. The Dunedin Fish-market was inspected every week, and the outlying fishing-ports twice during the year. A record is kept of the quantity and prices of fish sold on the market.

Two underground concrete tanks, each with a capacity of 2,000 gallons, have been built, one at each cottage, to supplement the storage of fresh water. These tanks are connected by pipes to the overhead tanks, and the water is lifted by semi-rotary hand-pumps.

A handrail, 120 ft. long, has been fixed on the south side of the steamer-wharf.

The small jetty used for landing stores and coal became unsafe for the "Tarewai," or even smaller boats, to moor to. The old structure was pulled down, and has been rebuilt on a concrete base. The launch and dinghy have been regularly overhauled, and both are in good order.

During the summer months a large number of people visited the stations. Several of the tanks, containing altogether about twenty species of native fish, living, as far as possible, in their natural surroundings, proved a great attraction.

At the close of last session of Parliament the Minister of Marine notified the Chairman of the Board that a grant of £200 per annum had been passed to enable the Board to appoint a research student to the hatchery, payment to commence as soon as the appointment is made. So far no suitable student has been found, though the fact of the grant has been made public and communicated to the four University colleges. The Board is very desirous of getting regular scientific research undertaken at the station, as a great number of problems await solution. Up to the present only two applications have been received, but both candidates require further preliminary training before they possess the necessary qualifications. The engagement will probably have to be for three years, as at least a year will have to be spent in preparatory work at the station.

The Board has recently been strengthened by the addition to its ranks of Professor W. B. Benham, D.Sc., F.R.S., whose scientific knowledge is of great value.

I have, &c.,

GEO. M. THOMSON,

Chairman, Marine Fish-hatchery Board.

The Secretary, Marine Department, Wellington.

THE MARINE ENGINEER to the SECRETARY, MARINE DEPARTMENT.

SIR,— Wellington, 3rd May, 1920.

I have the honour to report as follows upon the various works dealt with during the year ended 31st March, 1920:—

Cape Maria van Dieman.—A contract has been let for joinery repairs to the dwellings at this lighthouse, and tenders will shortly be invited for the erection of two new dwellings.

Aorere River Improvement.—A survey of this river has been carried out.

Russell Harbour.—In view of the erection of freezing-works in the vicinity of Opua, Bay of Islands, it has become necessary to improve the channel between the deep water off Russell and the deep water off Opua, a somewhat shallow bar existing between the two places. At the request of the County Council some soundings have been taken and a plan prepared indicating the position and extent of the improvement required. The details, together with an estimate of cost of carrying out the work, have been supplied to the County Council.

Portland Wharf, Whangarei.—Plans for the extension of this wharf have been prepared by the owners and passed.

Helensville River.—An order has been placed for an automatic oxy-acetylene light to replace the present oil-burning Wigham light at the entrance to the Helensville River from Kaipara Harbour.

South Head, Kaipara.—The present Wigham light at the entrance to the Helensville River will, when removed, be re-erected on the south head at the entrance to the Kaipara Harbour, to facilitate navigation by small vessels using the South Pass.

Mercury Island Passage.—Increasing trade in the Bay of Plenty has rendered necessary the marking of the inside passage in the vicinity of Mercury Island, and it has therefore been decided to place a light on Ohena Island. A site has been selected for the light, and an automatic acetylene light of a powerful description is being installed, and an order has been placed for the necessary apparatus.

Tauranga Harbour.—Plans submitted for the dredging of the Stella Channel have been passed as satisfactory.

Tauranga Harbour Bridge.—Lights have been placed on the piers of the railway-bridge.

Whakatane Wharf Extension.—Plans for a reinforced wharf have been submitted by the Harbour Board and approved.

Taheke River.—Willow-clearing in this river has been completed.

Gable End Foreland.—For several years past the installation of a light for the purpose of assisting navigation from the northwards towards Gisborne has been under the consideration of the Marine Department, and recently it was finally decided to erect an automatic light on the nearest available site to the Gable End Foreland, and an order has been given for the necessary parts. The site has been selected just south of the foreland itself. The light should have been placed on the foreland, but owing to the great height the light would always have been invisible in bad weather when most required, and as the sea breaks against the foot of the cliff which forms the seaward side of the foreland a light could not be placed in the most suitable position, and consequently the next-best site was selected. (When one remarks that a light could not be placed at the base of the cliff it is intended to convey the idea that it could have been placed there at an exorbitant cost which present requirements would not warrant.)

Godley Head Lighthouse.—Repairs to the steps leading to the lighthouse have been completed.

Hakataramea River.—Groynes and stop-banks have been constructed to prevent erosion and consequently damage to the fish-hatcheries, &c.

Moeraki.—The erection of a boat-slip has been approved.

Port Chalmers.—Satisfactory plans for a wharf have been submitted and approved.

Taiaroa Head.—It having been felt for a considerable time that the present light at Taiaroa Head—a fixed red light—is not sufficiently powerful to mark the position of the entrance to such an important harbour as Otago, it has been decided to improve the light by the installation of a powerful automatic oxy-acetylene apparatus, and to at the same time change the characteristics to an occulting white light, which will be visible at approximately twice the distance as a corresponding red light of the same power.

Ninepin Beacon, Chetwode Islands.—In order to facilitate navigation between Picton and Nelson it has been decided to place an automatic light at the inside of the Chetwode Islands, on the Ninepin Rock, this point marking the turning-point in the course of vessels between Jackson's Head and the French Pass. A contract has been let for the construction of the steel pedestal, and an order has been placed for the light apparatus.

Portage, Torea, and Waitaria Wharves.—Minor repairs have been effected

General.

The proposals submitted for approval have been dealt with as below:—

Wharves.—Raglan: Wharf completed. Helensville Hot Springs Wharf: Plans approved. Pacrata (Wairoa River): Erection of wharf approved. Onekaka River, Takaka: Erection of wharf approved. Auckland: New Hobson and Freeman's Bay wharves approved. Karamuramu Island, Hauraki Gulf: Alteration of jetty-site approved. Port Chalmers: Wharf plan approved. Bluff: Widening of wharf approved.

Reclamations.—Kohukohu: Boat-shed approved. Whangarei Heads: Boat-slip approved. Hokianga: Boat-shed approved. Tauranga: Boat-slip approved. Purakanui: Boat-shed site approved. Kaikoura: Shed on wharf approved. Bluff: Shelter for waterside workers approved. Tory Channel: Slipway approved.

Foreshore Leases.—Hokianga: Store-site. Whangarei: Shed-site. Mangonui: Boat-landing site. Awakino: Handling-stage site. Horeke: Lease. Kaikoura: Goods-shed. Half-moon Bay, Stewart Island: Fish-freezer.

Bridges, Ferries, &c.—Whangamarino River (Waikato): Bridge approved. Whau Creek: Bridge approved. Tokomaru Bay: Bridge approved.

Harbour-works.—Patea: Plans for foundation of breakwater extension approved. New Plymouth: Extension breakwater approved, also construction of wall connecting Moturoa Island with the mainland. Akaroa: Authority issued to erect sea-wall along beach road. Takaka: Training-wall approved.

R. W. Holmes, M.Inst.C.E.,
Marine Engineer.

The Secretary, Marine Department.

RETURNS.

RETURN SHOWING THE TOTAL EXPENDITURE OF THE MARINE AND INSPECTION OF MACHINERY DEPARTMENT DURING THE FINANCIAL YEAR ENDED 31ST MARCH, 1920.

—	Details.	Totals.
	£ s. d.	£ s. d.
Head Office: Salaries of staff	..	4,994 5 1
Harbours :—		
Greymouth,—		
Salary of Engineer	..	525 0 0
Hokianga,—		
Salaries of staff	677 10 0	
Repairs to launch	32 9 4	
Stores and contingencies	189 15 5	
		899 14 9
Kaipara,—		
Salaries of staff	610 17 3	
Fascines for beacons	37 15 9	
Repairs to launch	19 9 8	
Stores and contingencies	167 3 8	
		835 6 4
Wellington,—		
Salary of storeman	..	265 0 0
Somes Island,—		
Salary	195 0 0	
Stores and contingencies	266 0 6	
		461 0 6
Picton,—		
Salary	337 2 10	
House for Harbourmaster	1,260 8 1	
Stores and contingencies	42 3 8	
		1,639 14 7
Ngunguru,—		
Salary	..	15 0 0
Napier,—		
Salary	..	20 0 0
Marokopa,—		
Salary	..	10 0 0
Tongaporutu,—		
Salary	..	25 0 0
Mokau,—		
Salary	..	58 6 0
Waitapu,—		
Salary	25 0 0	
Stores and contingencies	3 5 5	
		28 5 5
Awakino,—		
Salary	..	20 0 0
Collingwood,—		
Salary	70 0 0	
Stores and contingencies	59 0 6	
		129 0 6
Karamea,—		
Salary	145 0 0	
Stores and contingencies	112 15 2	
		257 15 2
Little Wanganui,—		
Piloting vessels	..	16 0 0
Hokitika,—		
Salary	20 0 0	
Gas and contingencies	13 0 10	
		33 0 10
Okarito,—		
Salary	120 0 0	
Stores and contingencies	44 16 8	
		164 16 8
Okuru,—		
Salary	60 0 0	
Stores and contingencies	7 2 9	
		67 2 9
Waikawa,—		
Salary	..	10 0 0
Anglem Point,—		
Salary	35 0 0	
Stores and contingencies	10 4 3	
		45 4 3
Supervision of beaches, Hauraki Gulf	..	25 0 0
General contingencies	..	261 14 9
Total	..	10,806 7 7
Lighthouses :—		
Salaries	12,838 1 5	
Oil, stores, and contingencies	11,455 10 5	
Keepers' station and travelling allowances	1,421 12 2	
Compensation for William Murray	300 0 0	
Crane for Cuvier Island	166 12 0	
		26,181 16 0
Meteorological Office :—		
Salaries	1,481 17 10	
Cleaning offices	29 19 0	
Extra clerical assistance	91 11 8	
Inspection of stations	34 11 5	
Postage, telegrams, rent of boxes	1,488 14 0	
Printing and stationery	118 6 7	
Rent, office equipment, &c.	191 11 4	
Repairs, purchase of instruments	116 15 9	
Expenses, Director, at Imperial Conference	370 11 2	
Contingencies	15 17 6	
		3,939 16 3

RETURN SHOWING THE TOTAL EXPENDITURE OF THE MARINE AND INSPECTION OF MACHINERY DEPARTMENT DURING THE FINANCIAL YEAR ENDED 31ST MARCH, 1920—*continued.*

	Details.	Totals.
	£ s. d.	£ s. d.
Mercantile Marine Offices :—		
Salaries	8,755 12 3	
Cleaning offices	1 2 0	
Office equipment and rent	198 8 2	
Telephones	122 3 0	
Travelling allowances and expenses	320 13 0	
Extra clerical assistance	484 1 4	
Contingencies	2 16 6	
		9,884 16 3
Inspection of machinery and survey of ships :—		
Salaries	15,969 17 5	
Advertising, books, periodicals, &c.	58 8 6	
Collection of inspection fees	150 0 0	
Compassionate allowance (Pyke)	365 0 0	
Rent, cleaning offices, &c.	134 0 6	
Telephones	174 9 2	
Travelling allowances and expenses	4,921 3 2	
Contingencies	122 15 2	
		21,895 13 11
Protection of fish and oysters :—		
Salaries	2,250 10 9	
Benzine, oil, stores, &c.	410 18 1	
Casual labour	202 11 10	
Cost of Fisheries Commission	592 2 7	
Hakataramea Salmon-station Hatchery	65 17 6	
Erection of stop-banks at Haka	338 18 6	
Expenses of visit to Australia	149 5 8	
Grant for maintenance, Portobello	500 0 0	
Picking and sale of oysters	3,764 16 5	
Planting of oysters	149 10 0	
Re-erection of salmon-hatchery shed	232 10 4	
Stocking rivers with salmon	232 13 1	
Subsidy, Portobello Fish-hatchery Board	10 0 0	
Travelling allowances and expenses	350 1 9	
Contingencies	34 3 0	
		£9,283 19 6
Less Collection of brown-trout ova (credit balance)	..	64 5 4
		£9,219 14 2
Government steamers :—		
Salaries	1,524 14 6	
Training-ship "Amokura"	8,826 14 8	
Installation of wireless	68 15 9	
New training-ship	321 1 10	
S.s. "Hinemoa"	15,603 11 2	
S.s. "Tutanekai"	16,421 17 4	
		42,766 15 3
Miscellaneous :—		
Administration, Shipping and Seamen Act, &c.	283 14 9	
Waitapu leading-lights	90 0 0	
Carriage and freight	123 14 1	
Checking overcrowding on steamers	439 10 3	
Contribution to New Zealand Sailors' Room, England	17 17 0	
Expenses connected with examinations	113 13 7	
Extra clerical assistance	1,046 5 10	
Fog-signals, cartridges, &c.	63 14 5	
Gas and fuel for offices	25 13 3	
Audit fees	75 0 0	
Office equipment	145 13 3	
Postage, telegrams, &c.	1,034 7 11	
Preparation of tide-tables	412 10 0	
Printing and stationery	1,337 5 1	
Relief of distressed seamen	39 17 3	
Allowances to officers under Public Service Regulations	89 3 5	
Charts, books, &c.	202 3 3	
Superannuation of R. C. Hunter	90 0 0	
Survey of unseaworthy ships	18 16 0	
Telephones	149 18 0	
Travelling allowances and expenses	193 13 3	
Contingencies	325 14 5	
Prosecutions	46 1 9	
Contribution to Mokau Harbour Board (salary)	..	
Rent of High Commissioner's Office, London	100 0 0	
Piako River leading-lights	70 14 3	
Compensation to I. Hunt	237 2 7	
Repairs to Ruawai Wharf	397 0 0	
Removal of willows, Waiotu Stream	94 2 0	
Repairs to Waikawa Bay	96 9 5	
		7,359 15 0
Less—		
"New Zealand Nautical Almanacs" (credit balance)	103 13 2	
Relief, &c., crew of "Awanui" (credit balance)	314 16 4	
Renewal of wharves (credit balance)	68 3 0	
		486 12 6
		6,873 2 6
Grand total	..	131,568 1 11

RETURN SHOWING TOTAL COST OF MAINTENANCE OF THE NEW ZEALAND COASTAL LIGHTHOUSES DURING THE FINANCIAL YEAR ENDED 31ST MARCH, 1920.

Name of Lighthouse.	Salaries.	Oil consumed.		Stores and Contingencies.	Totals.
		Gallons.	Value.		
	£ s. d.		£ s. d.	£ s. d.	£ s. d.
Cape Maria van Diemen	416 9 3	792	83 3 0	(a, b)415 17 6	915 9 9
Cape Brett	415 3 1	772	81 1 0	(b)454 19 8	951 3 9
Mokohinou	492 10 0	717	75 5 6	(c)270 8 4	838 3 10
Tiritiri	366 14 0	596	62 11 6	162 7 5	591 12 11
Cuvier Island	440 16 0	653	68 11 6	235 14 2	745 1 8
East Cape	354 0 4	755	79 5 6	(b)377 3 1	810 8 11
Portland Island	432 17 2	804	84 8 6	(b)225 6 0	742 11 8
Castle Point	340 16 8	626	65 14 6	(b)329 2 3	735 13 5
Cape Palliser	280 14 9	682	71 12 0	(b)240 4 4	592 11 1
Pencarrow Head	390 0 0	573	60 13 0	127 5 0	577 18 0
Cape Egmont	370 0 0	750	78 15 0	198 15 9	647 10 9
Manukau Head	354 16 8	719	75 10 0	(d)141 13 11	572 0 7
Kaipara Head	431 18 10	729	76 11 0	(e, b)589 2 6	1,097 12 4
Brothers	461 16 3	650	68 5 0	(b)477 15 10	1,007 17 1
French Pass	218 8 3	195	22 8 0	15 12 9	256 9 0
Stephen Island	460 11 3	733	76 19 0	(b)372 17 4	910 7 7
Tory Channel	100 0 0	172	21 10 0	18 8 8	139 18 8
Cape Campbell	388 13 5	638	67 0 0	172 5 11	627 19 4
Godley Head	375 0 0	688	72 5 0	(b)215 15 0	663 0 0
Akaroa Head	313 1 0	505	53 0 6	(b)221 16 5	587 17 11
Jack's Point	225 0 0	314	32 19 6	141 6 6	399 6 0
Moeraki	370 0 0	611	64 3 0	57 10 4	491 13 4
Taiaroa Head	506 6 8	555	58 5 6	93 9 7	658 1 9
Cape Saunders	440 10 0	528	55 9 0	68 18 5	564 17 5
Nugget Point	496 5 0	809	84 19 0	(b)217 3 10	798 7 10
Waipapapa Point	374 11 8	715	75 1 6	(f)125 10 8	575 3 10
Dog Island	382 17 2	671	83 17 6	(g, b)318 18 4	785 13 0
Centre Island	473 8 3	729	76 11 0	(h)178 3 2	728 2 5
Puysegur Point	418 6 8	703	73 16 6	(b)263 13 9	755 16 11
Cape Foulwind	363 15 0	706	74 2 6	(b)151 17 11	589 15 5
Kahurangi Point	474 11 8	747	78 8 6	(j)455 11 9	1,008 11 11
Farewell Spit	525 0 0	685	71 18 6	(k)345 2 7	942 1 1
Somes Island	195 0 0	863	107 17 6	(b)254 19 9	557 17 3
Hokitika	20 0 0	Gas	13 0 10	..	33 0 10
Totals	12,669 19 0	..	2,294 19 10	7,934 18 5	22.899 17 3

(a) Includes £80 10s. for wire rope. (b) Includes wages of temporary keepers. (c) Includes £46 5s. 6d. for new boat.
(d) Includes £18 5s. for cartage of stores. (e) Includes £27 for new horse. (f) Includes £19 15s. 6d. for fencing-posts.
(g) Includes £40 for carriage of mails. (h) Includes £29 for carriage of mails, &c. (j) Includes £80 17s. for timber for repairs to house, &c. (k) Includes £132 15s. 11d. for horse-fodder.

RETURN SHOWING NUMBER OF FISHING-BOATS REGISTERED AND LICENSED AT EACH PORT DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Port.	Number registered.	Number licensed.	Port.	Number registered.	Number licensed.
Auckland	230	230	Brought forward	775	775
Bluff	57	57	Oamaru	33	33
Dunedin and Port Chalmers ..	82	82	Patea	3	3
Greymouth	11	11	Picton	28	28
Hokitika	4	4	Poverty Bay	18	18
Hokianga	17	17	Russell	41	41
Invercargill	27	27	Tauranga	32	32
Kaipara	92	92	Thames	49	49
Lyttelton	83	83	Timaru	27	27
Mangonui	..	..	Wairau	9	9
Napier	63	63	Wanganui	14	14
Nelson	74	74	Wellington	129	57
New Plymouth	35	35	Westport	15	15
Carried forward	775	775	Totals	1,173	1,101

Return showing the Cost of Erection of the New Zealand Coastal Lighthouses.

Name of Lighthouse.	Cost of Erection. £ s. d.
Pencarrow Head	6,422 0 4
Nelson	2,824 8 9
Tiritiri	5,747 7 2
Mana Island*	5,513 0 1
Taiaroa Head	4,923 14 11
Godley Head	4,705 16 4
Dog Island	10,480 12 8
Farewell Spit	6,139 11 8
Nugget Point	6,597 3 7
Cape Campbell	5,619 2 6
Manukau Head	4,975 2 4
Cape Foulwind	6,955 9 1
Brothers	6,241 0 0
Portland Island	6,554 14 5
Moeraki	4,288 13 2
Centre Island	5,785 19 0
Puysegur Point	9,958 19 5
Cape Maria van Diemen	7,028 14 8
Akaroa Head	7,150 6 5
Cape Saunders	6,066 6 3
Cape Egmont†	3,353 17 11
Mokohinou	8,186 5 0
Waipapapa Point	5,969 18 11
Ponui Passage‡	..
Kaipara Head	5,571 8 0
French Pass	1,427 17 5
Cuvier Island	7,406 16 11
Stephen Island	9,349 9 11
Cape Palliser	6,243 16 1
East Cape	7,594 8 8
Kahurangi Point	9,528 1 1
Jack's Point	1,204 10 9
Cape Brett	11,237 3 5
Castle Point	9,703 16 10
Chicken Island	1,149 3 4
Channel Islet	1,227 7 8
Karori Rock	4,570 6 1
Okuri Point	448 18 0
Cost of telegraph-cable to Tiritiri	1,085 19 6
Miscellaneous and unallocated	1,322 2 2
Total	£220,559 10 5

* Light discontinued; moved to Cape Egmont.
† Cost of iron tower, lantern, and apparatus, which were removed from Mana Island, is not included in this.
‡ Built by Provincial Government of Auckland; cost not nown in Marine Department.

Return showing the Fees, etc., received under the Shipping and Seamen Acts, the Merchant Shipping Act, the Harbours Acts, the Fisheries Acts, the Inspection of Machinery Acts, and the Tramways Acts during the Financial Year ended 31st March, 1920.

Nature of Receipts.	Amount. £ s. d.
Shipping and Seamen Acts:—	
Fees for engagement and discharge of seamen, and sale of forms	3,596 15 10
Surveys of steamers, oil-engine vessels, and sailing-vessels	3,069 12 0
Measurement of ships	53 16 6
Examination of masters, mates, and engineers	423 10 0
Light dues	32,164 8 8
Sundry receipts	1,586 14 8
Merchant Shipping Act	127 2 6
Harbours Acts:—	
Pilotage, port charges, &c.	783 3 3
Foreshore-rents and sundry receipts	840 19 3
Fisheries Acts:—	
Sale of oysters	5,367 15 3
Sundry receipts	404 14 10
Inspection of Machinery Acts:—	
Inspection of boilers and machinery	14,567 10 0
Examination of engine-drivers	530 17 6
Tramways Acts:—	
Examination of electric-tram drivers	100 0 0
Total	63,617 0 3

Return showing the Amount of Light Dues collected during the Financial Year ended 31st March, 1920.

Port.	Amount collected. £ s. d.
Auckland	12,153 8 3
Onehunga	98 15 1
Whangarei	231 17 11
Russell	37 10 4
Mangonui	0 4 10
Whangaroa	12 16 8
Hokianga	14 16 11
Whitianga	10 18 11
Whangape	0 2 0
Thames	66 4 0
Coromandel	8 10 1
Whakatane	39 1 3
Kaipara	35 16 8
Tauranga	50 9 9
Poverty Bay	386 19 8
Napier	597 0 0
New Plymouth	187 15 11
Waitara	31 17 3
Patea	20 4 0
Wanganui	506 7 2
Wellington	11,230 3 11
Wairau	9 12 1
Picton	270 5 5
Nelson	229 11 2
Westport	233 16 11
Greymouth	205 1 3
Hokitika	1 13 7
Lyttelton	3,095 2 7
Timaru	350 19 0
Oamaru	142 6 6
Dunedin	1,218 8 7
Bluff and Invercargill	685 12 2
Riverton	0 18 10
Total	32,164 8 8

RETURN SHOWING THE NUMBER OF SEAMEN ENGAGED AND DISCHARGED IN THE FOREIGN AND INTERCOLONIAL TRADE, THE HOME TRADE, AND WITHIN RESTRICTED LIMITS RESPECTIVELY, TOGETHER WITH THE AMOUNT OF FEES RECEIVED FOR THE SAME, FOR THE FINANCIAL YEAR ENDED 31ST MARCH, 1920.

Port.	Engagements and Discharges in Foreign and Intercolonial Trade.				Engagements and Discharges in Home Trade.				Engagements and Discharges in Restricted Limits.				Total Engagements.		Total Discharges.		Grand Totals.	
	Number of Seamen engaged.	Fees received.	Number of Seamen discharged.	Fees received.	Number of Seamen engaged.	Fees received.	Number of Seamen discharged.	Fees received.	Number of Seamen engaged.	Fees received.	Number of Seamen discharged.	Fees received.	Number of Seamen.	Fees received.	Number of Seamen.	Fees received.	Number of Seamen.	Fees received.
		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.
Auckland	2,971	217 1 0	2,872	209 13 0	3,284	211 4 0	3,285	209 16 6	468	27 17 6	470	28 10 6	6,723	456 2 6	6,627	448 0 0	13,350	904 2 6
Dunedin and Port Chalmers	1,279	92 16 0	1,606	85 11 0	993	63 13 0	864	56 19 6	..	..	..	..	2,272	156 9 0	2,470	142 10 6	4,742	298 19 6
Greymouth	42	3 3 0	27	2 0 6	111	7 6 6	93	5 18 0	..	..	..	..	153	10 9 6	120	7 18 6	273	18 8 0
Hokianga	4	0 6 0	3	0 4 6	13	0 11 0	12	0 11 6	..	..	..	..	17	0 17 0	15	0 16 0	32	1 13 0
Hokitika	..	..	..	..	30	1 7 0	31	1 11 6	..	..	..	..	30	1 7 0	31	1 11 6	61	2 18 6
Invercargill	28	2 2 0	30	2 5 0	7	0 10 6	4	0 6 0	..	..	..	..	35	2 12 6	34	2 11 0	69	5 3 6
Kaipara	4	0 6 0	9	0 13 6	2	0 3 0	2	0 3 0	..	..	..	..	6	0 9 0	11	0 16 6	17	1 5 6
Lyttelton	660	48 18 6	585	43 16 0	1,442	93 4 6	1,303	98 6 6	..	..	..	..	2,102	142 3 0	1,888	142 2 6	3,990	284 5 6
Napier	9	0 10 6	17	1 2 6	342	18 12 0	345	18 1 6	64	4 10 0	63	4 8 6	415	23 12 6	425	23 12 6	840	47 5 0
Nelson	..	..	..	..	506	29 13 0	487	28 4 6	..	..	..	..	506	29 13 0	487	28 4 6	993	57 17 6
New Plymouth	6	0 9 0	4	0 6 0	31	1 19 0	26	1 19 0	..	..	..	..	37	2 8 0	30	2 5 0	67	4 13 0
Oamaru	2	0 3 0	4	0 6 0	16	1 4 0	8	0 12 0	..	..	..	..	18	1 7 0	12	0 18 0	30	2 5 0
Onehunga	27	2 0 6	26	1 19 0	506	32 15 0	468	29 18 0	..	..	..	..	533	34 15 6	494	31 17 0	1,027	66 12 6
Picton	7	0 10 6	2	0 3 0	24	1 9 6	19	1 2 0	..	..	..	..	31	2 0 0	21	1 5 0	52	3 5 0
Poverty Bay	8	0 12 0	4	0 6 0	63	3 11 6	37	2 15 6	..	..	..	..	71	4 3 6	41	3 1 6	112	7 5 0
Russell	1	0 1 6	1	0 1 6	1	0 1 6	..	..	..	..	..	..	2	0 3 0	1	0 1 6	3	0 4 6
Thames	..	..	..	..	1	0 1 6	1	0 1 6	..	..	..	..	1	0 1 6	1	0 1 6	2	0 3 0
Timaru	28	2 2 0	26	1 19 0	77	5 15 6	58	4 7 0	..	..	..	..	105	7 17 6	84	6 6 0	189	14 3 6
Wairau	..	..	..	..	36	1 12 6	35	1 11 0	..	..	..	..	36	1 12 6	35	1 11 0	71	3 3 6
Wanganui	37	2 15 6	46	3 9 0	86	5 11 0	117	7 2 6	..	..	..	..	123	8 6 6	163	10 11 6	286	18 18 0
Wellington	3,717	258 19 0	3,376	237 0 6	4,073	277 10 0	4,105	281 0 0	..	..	..	..	7,790	536 9 0	7,481	518 0 6	15,271	1,054 9 6
Westport	15	1 2 6	10	0 15 0	62	4 12 6	54	4 0 6	..	..	..	..	77	5 15 0	64	4 15 6	141	10 10 6
Whakatane	..	..	..	..	3	0 4 6	4	0 6 0	..	..	..	..	3	0 4 6	4	0 6 0	7	0 10 6
Whangape	..	..	2	0 3 0	..	..	..	..	..	..	..	..	..	..	2	0 3 0	2	0 3 0
Whangarei	7	0 10 6	10	0 15 0	..	..	1	0 1 6	..	..	..	..	7	0 10 6	11	0 16 6	18	1 7 0
Whitianga	1	0 1 6	1	0 1 6	..	..	..	..	..	..	..	..	1	0 1 6	1	0 1 6	2	0 3 0
Totals	8,853	634 10 6	8,661	592 10 6	11,709	762 12 6	11,359	754 15 0	532	32 7 6	533	32 19 0	21,094	1,429 10 6	20,553	1,380 4 6	41,647	2,809 15 0

RETURN OF ESTATES OF DECEASED SEAMEN RECEIVED AND ADMINISTERED IN PURSUANCE OF THE PROVISIONS OF THE SHIPPING AND SEAMEN ACT, 1908, DURING THE YEAR ENDED 31ST MARCH, 1920.

Name of Seaman.	Balance to Credit of the Estate on 31st March, 1919.	Amount received.	Amount paid.	Balance to Credit of the Estate on 31st March, 1920.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
P. O'Sullivan	2 18 3	..	2 18 3	..
Charles Smith	6 1 7	..	6 1 7	..
Charles Fowler	7 4 7	..	1 5 10	5 18 9
J. Lindsay	1 0 8	..	1 0 8	..
John Muller	26 15 0	..	26 15 0	..
Charles Geige	21 1 9	..	0 5 6	20 16 3
E. Mason	1 11 6	..	1 11 6	..
Charles Collins	2 7 1	..	2 7 1	..
Thomas Fagan	24 2 1	..	24 2 1	..
William Glancy	2 9 2	..	2 9 2	..
William Kennedy	1 3 2	..	1 3 2	..
J. Ward (or Wood)	7 18 7	..	7 18 7	..
W. Ladbury	7 13 8	..	7 13 8	..
Thomas Pope	7 2 0	0 18 0	1 12 0	6 8 0
Arthur E. Connolly	..	23 1 8	..	23 1 8
K. Kalupa	25 19 2	2 1 3	28 0 5	..
T. Pierce	35 8 10	0 8 3	..	35 17 1
Thomas Rutter	..	8 4 2	..	8 4 2
Thor J. Kettleson	417 10 6	..	417 10 6	..
Henry Quoi	5 15 6	..	5 15 6	..
George Thomas	..	12 11 7	12 11 7	..
John Quist	12 10 11	..	12 10 11	..
Pierre M. Kerfontain	..	9 0 4	..	9 0 4
William Hall	..	9 7 8	..	9 7 8
John Wall	..	15 16 2	..	15 16 2
W. Suskoner	6 3 7	..	0 16 0	5 7 7
Carl Larseni	..	21 16 7	..	21 16 7
Edwards Cocks	11 1 2	..	11 1 2	..
James Dagnall	..	8 5 2	8 5 2	..
J. Linddahl	1 7 11	3 14 6	..	5 2 5
C. McIllaney	7 2 8	..	7 2 8	..
Thomas Forsyth	..	14 15 11	14 15 11	..
Donald Curry	5 16 2	..	5 16 2	..
Robert Oliphant	13 1 10	..	13 1 10	..
Percy Alex. Gilbertson	..	5 2 8	..	5 2 8
William Maguire	8 16 8	..	8 16 8	..
E. E. Curtis (Miss)	..	11 11 0	11 11 0	..
L. M. Lamb	..	2 0 0	2 0 0	..
David Carroll	..	4 14 0	..	4 14 0
Patrick Healey	20 8 1	..	11 13 6	8 14 7
Robert McNab	..	49 2 9	..	49 2 9
J. Monaghan	..	4 6 7	..	4 6 7
A. McIntyre	38 17 10	0 2 6	..	39 0 4
Frank R. Sands	9 18 2	0 4 7	10 2 9	..
W. H. Stevens	..	12 16 0	12 16 0	..
G. Greenwood	..	13 17 4	..	13 17 4
Charles Williams	..	11 9 4	11 9 4	..
James Karautu	..	2 14 0	..	2 14 0
D. McLean	..	12 0 0	12 0 0	..
Nio	16 5 9	0 17 0	17 2 9	..
William McKenzie	14 11 4	..	14 11 4	..
Wiremu Renata	20 4 6	..	20 4 6	..
John Sullivan	..	20 18 9	20 18 9	..
George Taylor	..	8 12 11	8 12 11	..
A. Fullen	..	16 5 4	16 5 4	..
O. Townsend	..	16 5 4	16 5 4	..
James McGinley	..	26 17 8	26 17 8	..
E. Brain	..	17 11 10	17 11 10	..
William Jackson	..	11 2 0	11 2 0	..
George Mitchell	1 12 6	..	1 12 6	..
Peter Petersen	3 19 0	..	3 19 0	..
	796 1 2	378 12 10	880 5 1	294 8 11

RETURN SHOWING AMOUNTS RECEIVED PRIOR TO 1ST APRIL, 1920, STANDING TO CREDIT OF ESTATES OF DECEASED SEAMEN, AND FOR WHICH CLAIMS HAVE NOT BEEN PROVED.

	£ s. d.		£ s. d.
Anderson, Caleb, late greaser, "Tarawera"	10 14 8	Linddahl, J., late A.B., "Kapuni"	5 2 5
Cook, Donald, late steward, "Ngatoro"	8 4 8	Lockyer, Edward, late A.B., "Wanaka"	71 18 6
Devere, A., late boatswain, "Flora"	15 16 5	Logan, John, late scullion, "Monowai"	5 11 10
Doran, G., late trimmer, "Waihora"	18 8 7	Make-atu, A., late cook, "Ngatiawa"	2 3 0
Espada, Edward, late fireman, "Maunganui"	4 3 10	Martini, Santiago, late A.B., "Antiope"	9 1 10
Flynn, William	11 13 6	Mason, A., late fireman, "Maitai"	1 1 9
Gourley, John, late fireman, "Kaiapoi"	3 16 9	Matheson, D., late A.B., "Kahu"	17 10 5
Harvey, C., late steward, "Mapourika"	4 14 8	Mitchelson, F., late A.B., "Te Teko"	4 14 11
Hedges, E., late A.B., "Kairaki"	43 4 5	McEvoy, J., late trimmer, "Koromiko"	0 6 10
Hilditch, H. C., late fireman, "Ngahere"	6 3 5	McIntyre, A., late A.B., "Ulimaroa"	39 0 4
Hollis, W., late A.B., "Kairaki"	1 5 4	McKendrick, J., late trimmer, "Maitai"	0 12 4
Hunter, J., late fireman, "Stormbird"	1 6 11	McLauchlan, J., late fireman, "Flora"	3 14 8
Iro Joe, late fireman, "Moana"	4 6 0	McLeod, M., late steward, "Kittawa"	7 4 0
Knudson, E., late second mate, "Kairaki"	15 19 2	McRoberts, D., late A.B., "Waihora"	6 11 6
Kyle, R., late fireman, "Stormbird"	1 6 1	O'Connor, Michael, late A.B., "Koutunui"	19 10 10
Larsen, A., late A.B., "Queen of the South"	7 8 0	O'Flaherty, B., late fireman, "Whangape"	1 17 8
Larsen, Jacob, late A.B., "Houto"	5 2 8	Owen, R. H., late A.B., "Waihemo"	32 14 3

RETURN SHOWING AMOUNTS RECEIVED PRIOR TO 1ST APRIL, 1920, ETC.—*continued.*

	£	s.	d.
Penman, James, late second engineer, "Navua"	15	14	0
Pierce, T., late A.B., "Waihora"	35	17	1
Pope, Thomas, late steward, "Ngahere" ..	6	8	0
Powell, R., late cook, "Karori"	16	8	8
Pulciki (Niue Native), late boy, "Awanui" ..	1	7	8
Rawlins, A. W., late boy, "Storm" ..	5	12	5
Rindedal, H. M., late A.B., "Ilma" ..	8	17	9
Smith, A., late A.B., "Kairaki"	7	17	11
Staw, Charles, late A.B., "Waihora" ..	7	1	4
Stead, F. R., late fireman, "Maori" ..	13	16	3
Suskoner, W., late fireman, "Whangape" ..	5	7	7
Tautonga, late cook, "Mahurangi" ..	4	8	0
Victor, Charles, late cook, "Kiritona" ..	7	4	5
Wallace, Robert, late cook, "Tarawera" ..	7	8	1
Warelin, F., late A.B., "Koromiko" ..	4	0	4
Wassell, R., late A.B., "Elsie Mary" ..	0	7	6
Weightman, A., late cook, "Moana" ..	3	9	5
West, John, late A.B., "Greyhound" ..	1	17	4
Williams, John, late cook, "Regulus" ..	5	17	6

RETURN OF MASTERS AND MATES TO WHOM CERTIFICATES OF COMPETENCY WERE ISSUED DURING THE YEAR ENDED 31ST MARCH, 1920.

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
William Charles Hugh Watt	Master	Foreign trade	24/4/19	1253
Norman Berthold Wiley Haszard	,,	,,	14/7/19	1177
Robert Blair Derniston	,,	,,	21/10/19	1239
Harold Donald	,,	,,	12/11/19	1241
Andrew Granville Manners Christie	,,	,,	18/11/19	1180
Duncan Cameron Macdonald	,,	,,	25/11/19	1205
John William Murray	,, (steamship)	,,	12/6/19	1198
James Delay	,, ,,	,,	12/11/19	1329
George David Fraser	,, ,,	,,	1/3/20	1283
Richard Martin	First mate (steamship)	,,	24/4/19	1284
Robert Michael Scott	Ditto	,,	12/6/19	1321
Douglas Merlin Chapman	,,	,,	5/7/19	1289
William Herbert Cadwallader	,,	,,	26/8/19	1303
Thomas Robertson	,,	,,	10/9/19	1302
Allan Ernest Rawlings	,,	,,	12/11/19	1301
Francis George Mabb	,,	,,	12/11/19	1307
Peter Scott Isbister	,,	,,	1/3/19	1270
James Winfred Knox	Second mate	,,	28/4/19	1292A
Benjamin Frank Fisher	,,	,,	12/6/19	1320
Alexander John Matheson	,,	,,	12/6/19	1322
Reginald James Dawson	,,	,,	30/7/19	1323
Sydney Lory Williams	,,	,,	26/8/19	1325
Guy Miller Simpson	,,	,,	12/11/19	1328
John MacIntosh Anderson	,,	,,	18/12/19	1331
William James Freeman	Second mate (steamship)	,,	24/4/19	1293A
William Horatio Mouldy	Ditto	,,	13/5/19	1294A
Thomas Ewart Bevan	,,	,,	13/5/19	1295A
Ronald Theodore Ings	,,	,,	30/7/19	1324
Laurence Mumby	,,	,,	21/10/19	1326
Albert Baldwin Anderson	,,	,,	21/10/19	1327
Albert Charles Carston	,,	,,	18/12/19	1330
Francis John Callan	,,	,,	1/3/20	1332
William Henry Ormsby	,,	,,	1/3/20	1333
Edwin Hugh Fowler	Master	Home trade	12/6/19	5762
Percy Alfred Miles	,,	,,	12/6/19	5837
John Merlin Reeves	,,	,,	9/6/19	5869
Ernest Frank Stearne	,,	,,	30/7/19	5829
Henry Scollay Groat	,,	,,	12/9/19	5774
Frederick John Allen	,,	,,	10/9/19	5817
Andrew Brodie	,,	,,	19/9/19	5815
Edward Binney Laing	,,	,,	21/10/19	5826
Robin Victor Manson	,,	,,	17/12/19	5766
Peter McLachlan	,,	,,	16/12/19	5842
John McLachlan	,,	,,	16/12/19	5809
Bernard John O'Donnell	,,	,,	18/12/19	5832
Charles Stephens	,,	,,	16/1/20	5805
William Henry Jessup	Mate	,,	1/4/19	5866
William Frederick Knight	,,	,,	1/4/19	5867
William Rimell Scantlebury	,,	,,	14/5/19	5868
Thomas Matthew Nicholson	,,	,,	5/7/19	5870
Desmond Watson	,,	,,	15/8/19	5871
Thomas Monaghan	,,	,,	21/10/19	5872
William Ewart Aspden	,,	,,	21/10/19	5873
Hilary Moore Wright	,,	,,	21/10/19	5874
Roderick Chisholm	Master	Fishing-boat or cargo-vessel under 25 tons register	13/5/19	86
Alexander McGlashan	,,	Ditto	25/11/19	87
William Alfred Sayer	,,	,,	25/11/19	88
Harry Edward Carey	,,	,,	25/11/19	89
Charles John Ellstrom	,,	,,	19/12/19	90
Albert Edwin Ansell	,,	River steamer	1/4/19	3737
Clifford Reginald Le Grice	,,	,,	1/4/19	3738
John Hugh Selley	,,	,,	1/4/19	3739
John Daniel Howard	,,	,,	13/5/19	3740
George William Roff	,,	,,	30/7/19	3741
Hubert Alexander Rhind	,,	,,	26/8/19	3742
John Robert Stewart	,,	,,	26/8/19	3743
William Herbert Gillice	,,	,,	10/9/19	3744
Ralph Morse	,,	,,	21/10/19	3745
William Perriman Watts	,,	,,	21/10/19	3746
Arthur Thomas Colman	,,	,,	12/11/19	3747
Thomas Brown Campbell	,,	,,	18/12/19	3748
Alexander Munro	,,	,,	16/1/20	3749
Frank Lockwood Holder	,,	,,	16/1/20	3750

Return of Engineers to whom Certificates of Competency were issued during the Year ended 31st March, 1920.

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
James Alexander Cowan	1st-class engineer	Foreign trade	13/5/19	1700
Laurance Arthur Calvert	,,	,,	13/5/19	1619
Duncan William Palmer	,,	,,	12/6/19	1527
Ernest Williams	,,	,,	12/6/19	1357
Campbell McVicar	,,	,,	5/7/19	1763
John Joseph Flaherty	,,	,,	7/7/19	1567
Samuel Hosking Luke	,,	,,	7/7/19	411
Frank Furneaux	,,	,,	10/9/19	1720
Frederick Henry Hopkins	,,	,,	21/10/19	943
Frederick William Brown	,,	,,	21/10/19	2118
Oscar Hugh Wright	,,	,,	21/10/19	1524
Richard Randolph Bramley	,,	,,	21/10/19	1784
Robert Sholto Dickie	,,	,,	13/11/19	2123
John Douglas	,,	,,	25/11/19	2124
Harold Pike	,,	,,	25/11/19	1783
Harry Anthony Davies	,,	,,	25/11/19	1676
Hiram St. Clair Woodley	,,	,,	16/1/20	1970
Phillip Thornicroft Middleditch	,,	,,	16/1/20	1807
Paul Cuthbert Graham	,,	,,	24/2/20	929
James Jeffries	,,	,,	24/2/20	839
William Henry Hodgson	,,	,,	24/2/20	1778
George Francis Smith	,,	,,	24/2/20	2158
Joseph Steele	2nd-class engineer	,,	1/4/19	464
George Henry Steevens	,,	,,	28/4/19	1867
Alexander Robert Aitken	,,	,,	12/6/19	1975
Clifford Wallace Page	,,	,,	12/6/19	1616
Henry Alfred Shacklock	,,	,,	5/7/19	1728
Edward John Rixon	,,	,,	14/7/19	1909
Walter Dance	,,	,,	10/9/19	1745
Frank Percy Andrew	,,	,,	21/10/19	1601
John Leslie Fairbairn	,,	,,	21/10/19	1821
William Clarence Murray	,,	,,	13/11/19	1941
Henry Charles Rasmussen	,,	,,	13/11/19	1888
Ivan Hugh Donahoe	,,	,,	25/11/19	1596
Horace William Harkess	,,	,,	16/1/20	1903
Robert Lewis Sweet	,,	,,	24/2/20	1881
Oscar Camille Miller	,,	,,	18/3/20	2180
Lewis Bradford Giles	3rd-class engineer	,,	29/4/19	2068
Edward William McKenzie	,,	,,	29/4/19	2069
Joseph Hyndman Macindoe	,,	,,	29/4/19	2070
Percy Palmer	,,	,,	29/4/19	2071
Leslie Leonard Rabbidge	,,	,,	29/4/19	2072
Frederick James Hale	,,	,,	29/4/19	2073
Leslie Paul Hastings	,,	,,	29/4/19	2074
Charles Frederick George Tasker	,,	,,	29/4/19	2075
Lewis Vincent Jellyman	,,	,,	29/4/19	2076
James Arthur Forbes	,,	,,	12/6/19	2077
Benjamin Charles Henderson Wylie	,,	,,	12/6/19	2078
Zeal Herman Erikson	,,	,,	12/6/19	2079
David Arthur Foley	,,	,,	12/6/19	2080
Allan Cole	,,	,,	12/6/19	2081
Henry Parrant	,,	,,	12/6/19	2082
Harry Gill	,,	,,	12/6/19	2083
Walter Bamford Hoare	,,	,,	12/6/19	2084
Robert John Ward Dalton	,,	,,	12/6/19	2085
Neil Ian McKinnon	,,	,,	5/7/19	2086
Gordon William Gardner	,,	,,	5/7/19	2087
Leonard Timothy Brosnahan	,,	,,	5/7/19	2088
Oscar Alexander Anderson	,,	,,	5/7/19	2089
Basil Arthur Conrad Herapath	,,	,,	5/7/19	2090
Jack Cresswell	,,	,,	15/8/19	2091
Archibald McAllister	,,	,,	15/8/19	2092
Leo John Shuker	,,	,,	15/8/19	2093
Arthur George Washington West	,,	,,	15/8/19	2094
John Earsman	,,	,,	15/8/19	2095
Percival Manderson	,,	,,	15/8/19	2096
Henry Cecil Bryant	,,	,,	10/9/19	2097
Peter Forrester Collett	,,	,,	10/9/19	2098
Robert William McKenzie	,,	,,	10/9/19	2099
Cyril Whaler Burkitt	,,	,,	21/10/19	2100
Francis Lionel Arthur Trolove	,,	,,	21/10/19	2101
Reginald McConchie	,,	,,	21/10/19	2102
Talbot John Shields Maxwell	,,	,,	21/10/19	2103
Ewart Gladstone Brown	,,	,,	21/10/19	2104
Arthur Stevens Underhill	,,	,,	21/10/19	2105
Herbert Vivian Pole	,,	,,	21/10/19	2106
Walter Sydney Steer	,,	,,	21/10/19	2107
Arnold Kelvin Low	,,	,,	21/10/19	2108
Leslie John Dewick	,,	,,	21/10/19	2109
Leon Ambrose Millar	,,	,,	21/10/19	2110
Ernest Fredrick Laslett	,,	,,	21/10/19	2111
John Rambi Addis	,,	,,	21/10/19	2112
Arthur Beere	,,	,,	21/10/19	2113
Roy Gilbert Yardley	,,	,,	21/10/19	2114

RETURN OF ENGINEERS TO WHOM CERTIFICATES OF COMPETENCY WERE ISSUED DURING THE YEAR ENDED 31ST MARCH, 1920—*continued.*

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
Ralph Osborne	3rd-class engineer	Foreign trade	21/10/19	2115
Manu Francis Smith	,,	,,	21/10/19	2116
Norman Campbell McKinlay	,,	,,	21/10/19	2117
John Barron	,,	,,	13/11/19	2119
Ronald Leopold Fleury Walker	,,	,,	13/11/19	2120
Alexander Ashley	,,	,,	13/11/19	2121
Arthur Rex Hunt	,,	,,	13/11/19	2122
Laurence Frederick Blomfield	,,	,,	2/12/19	2125
Eric Nelson Moore	,,	,,	2/12/19	2126
Eric Douglas Le Quesne	,,	,,	2/12/19	2127
Alexander Herbert Law	,,	,,	2/12/19	2128
Eric Raymond Smith	,,	,,	2/12/19	2129
Joseph McDowell	,,	,,	2/12/19	2130
Francis Henry Coatsworth	,,	,,	16/12/19	2131
Douglas McLean	,,	,,	16/12/19	2132
Percy McNeilage	,,	,,	16/12/19	2133
Charles Gordon	,,	,,	16/12/19	2134
James Gilmore Clarke	,,	,,	16/12/19	2135
Charles Victor Smith	,,	,,	16/12/19	2136
Andrew McKay	,,	,,	16/1/20	2137
Hugh Douglas Whittlesey Purchas	,,	,,	16/1/20	2138
Eric Wright	,,	,,	24/2/20	2139
Norman George Earl	,,	,,	24/2/20	2140
Joseph Robert McGrath	,,	,,	24/2/20	2141
Basil Edmund Horatio Isaac	,,	,,	24/2/20	2142
Archibald Thomas Bacon	,,	,,	24/2/20	2143
Oswald Clegg	,,	,,	24/2/20	2144
Henry William Insley	,,	,,	24/2/20	2145
Philip George Connolly	,,	,,	24/2/20	2146
Alfred James Lindsay	,,	,,	24/2/20	2147
Selwyn James Rod	,,	,,	24/2/20	2148
James Park Laurie	,,	,,	24/2/20	2149
William John Milton Watt	,,	,,	24/2/20	2150
Thomas Tangaroa Bollons	,,	,,	24/2/20	2151
Robert Watson	,,	,,	24/2/20	2152
Lancelot Hall	,,	,,	24/2/20	2153
Frederick James Brocklebank	,,	,,	24/2/20	2154
James Boeson	,,	,,	24/2/20	2155
Harold Sinclair Muschamp	,,	,,	24/2/20	2156
George Agustus Walter Ryan	,,	,,	24/2/20	2157
Ernest Richard Marsh	,,	,,	2/3/20	2159
John Kenneth Crosbie Spooner	,,	,,	2/3/20	2160
William Henry Harsent	Engineer	River trade	13/5/19	2297
Harold Norman Pasfield	,,	,,	13/5/19	2298
Henry Pickford Scrivener	,,	,,	13/5/19	2299
Thomas Alfred Bond	,,	,,	12/6/19	2300
Archibald Douglas Michie	,,	,,	12/6/19	2301
Frederick Buchanan	,,	,,	12/6/19	2302
Charles Staniland West	,,	,,	12/6/19	2303
George John Vazey	,,	,,	14/7/19	2304
Frederick McCulloch	,,	,,	30/7/19	2305
Samuel Patterson	,,	,,	30/7/19	2306
Henry Gordon Lang	,,	,,	10/9/19	2307
Peter Pafform	,,	,,	21/10/19	2308
William James Mason	,,	,,	21/10/19	2309
Axel Emanuel Tornquist	,,	,,	25/11/19	2310
George Smith	,,	,,	16/12/19	2311
Arthur Edward Emmett	,,	,,	16/12/19	2312
Richard Polkinghorne	,,	,,	16/1/20	2313
Edward Duckworth	,,	,,	24/2/20	2314
Frederick Joseph Painter	,,	,,	24/2/20	2315
Joseph Archibald Gowers	,,	,,	24/2/20	2316
John Lawrie	1st-class oil engineer	Seagoing	12/6/19	336
Arthur Thomas Gill	,,	,,	12/6/19	114
James William Hamilton	,,	,,	5/7/19	72
Stephen Lawrence Wilson	,,	,,	30/7/19	341
Harry Baggott	,,	,,	30/7/19	342
Wilfred Milne Dawson	,,	,,	1/8/19	344
Alec Christopher Thompson	,,	,,	18/9/19	253
Macey Goring Yelverton	,,	,,	21/10/19	349
John Edward Diggle	,,	,,	21/10/19	350
Joseph Calvert Allely	,,	,,	25/11/19	351
William Patterson Hunter	,,	,,	25/11/19	352
William David Hibbert	,,	,,	24/2/20	355
Claud Samuel Woodbury	,,	,,	24/2/20	356
Claud Reginald Hibbard	,,	,,	24/2/20	357
Oscar Camille Miller	,,	,,	18/3/20	362
James Allan	2nd-class oil engineer	,,	12/6/19	335
Zala Cromer Tatton	,,	,,	5/7/19	337
Herbert Thomas Barnes	,,	,,	14/7/19	338
Marcus Dodd McPherson	,,	,,	14/7/19	339
Angus Charles Jamieson	,,	,,	30/7/19	340
Arnold Symes Wilson	,,	,,	15/8/19	343
William Thomas Widdowson	,,	,,	11/9/19	345

RETURN OF ENGINEERS TO WHOM CERTIFICATES OF COMPETENCY WERE ISSUED DURING THE YEAR ENDED 31ST MARCH, 1920—*continued.*

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
Thomas Edwin White	2nd-class oil engineer	Seagoing	21/10/19	346
Samuel Campbell Crawford	,,	,,	21/10/19	347
Desmond Watson	,,	,,	21/10/19	348
Harry Tinker	,,	,,	16/12/19	353
Louis Allan McNabb	,,	,,	16/1/20	354
Herbert Dawson	,,	,,	24/2/20	358
Charles Alexander Smith	,,	,,	24/2/20	359
Edward Duckworth	,,	,,	24/2/20	360
Edgar Hastings Cambridge	,,	,,	24/2/20	361
Laurence Peter Gilshenan	River oil engineer	Restricted limits	1/4/19	900
Edwin Bishop Taylor	,,	,,	1/4/19	901
Sydney George Layne	,,	,,	28/4/19	902
Poato Nathan	,,	,,	28/4/19	903
George Percival Leask	,,	,,	28/4/19	904
William Edmund Curel	,,	,,	13/5/19	905
Walter Robert Rope	,,	,,	13/5/19	906
Henry Grennell	,,	,,	13/5/19	907
George James Balfour	,,	,,	13/5/19	908
Henry Green	,,	,,	12/6/19	909
Henry Crosby	,,	,,	12/6/19	910
James Ranfurly Francis	,,	,,	12/6/19	911
John Roy Ferguson	,,	,,	12/6/19	912
Wilfred Lester Reyland	,,	,,	12/6/19	913
Henry Albert Logan	,,	,,	12/6/19	914
William Edgar Swinnerton	,,	,,	12/6/19	915
John Speed Webster	,,	,,	12/6/19	916
Henry Osburne Stone	,,	,,	12/6/19	917
William Joseph Parker	,,	,,	12/6/19	918
David Hunter	,,	,,	12/6/19	919
Reginald Kenneth McGregor	,,	,,	12/6/19	920
Leo Reginald Rutherford	,,	,,	12/6/19	921
Piri Rihari	,,	,,	5/7/19	922
Eru Rihari	,,	,,	5/7/19	923
Thomas Walter Deeming	,,	,,	5/7/19	924
Vincent Charles Deeming	,,	,,	5/7/19	925
William Edmund Lane	,,	,,	5/7/19	926
Henry Tulloch	,,	,,	5/7/19	927
David Hamilton Hogg	,,	,,	30/7/19	928
Henry Wilfred Monteith Payne	,,	,,	30/7/19	929
Richard Arthur Jones	,,	,,	30/7/19	930
Laurence Sinclair	,,	,,	30/7/19	931
Thomas Henry Hutton	,,	,,	30/7/19	932
Stanley Charlton Knowles	,,	,,	15/8/19	933
George Edward Galvan	,,	,,	10/9/19	934
John Hales	,,	,,	16/9/19	935
Arthur Little	,,	,,	18/9/19	936
Andrew Hall Kirkland Galloway	,,	,,	18/9/19	937
Alexander McPherson	,,	,,	18/9/19	938
Roy Athelston Lowe	,,	,,	21/10/19	939
William George Henry Richards	,,	,,	21/10/19	940
Richard Powell Rope	,,	,,	21/10/19	941
William Herbert Ross	,,	,,	21/10/19	942
Linden Marriott Gibbs	,,	,,	21/10/19	943
Kenneth William Campbell	,,	,,	21/10/19	944
William Whitehead	,,	,,	21/10/19	945
Tema Pouwharetapu Kewene	,,	,,	21/10/19	946
George Wadey	,,	,,	21/10/19	947
Richard Charles Underwood	,,	,,	13/11/19	948
Donald Urquhart	,,	,,	13/11/19	949
James William Sunderland	,,	,,	13/11/19	950
Francis Pullen Walker	,,	,,	25/11/19	951
James Gordon Mincher	,,	,,	25/11/19	952
Ernest Lewin Gibbons	,,	,,	25/11/19	953
William George Kerby	,,	,,	25/11/19	954
Alexander Beazley, jun.	,,	,,	25/11/19	955
Richard Henry Newman	,,	,,	25/11/19	956
Stanley Rowland Buckton	,,	,,	25/11/19	957
John McInnes Sharps	,,	,,	25/11/19	958
James Albert Reed	,,	,,	25/11/19	959
Woolsey Allen Carr	,,	,,	25/11/19	960
Reginald Herbert Jones	,,	,,	25/11/19	961
Stanley Belton Pilcher	,,	,,	25/11/19	962
Edwin Frank Scott Grant	,,	,,	25/11/19	963
Hugh Stuart-Forbes	,,	,,	25/11/19	964
Ernest Frederick Burns	,,	,,	16/12/19	965
Ralph Horatio Ward	,,	,,	16/12/19	966
Arthur Eden Patterson	,,	,,	16/12/19	967
John Richard McCrae	,,	,,	16/12/19	968
Garnet Bowen Holmes	,,	,,	16/12/19	969
William Herbert Unwin	,,	,,	16/12/19	970
Donald Allan Bourke	,,	,,	16/12/19	971
Eric Alfred Johnson	,,	,,	16/12/19	972
Robert Charles Buckingham	,,	,,	16/12/19	973
Edward Henry Whitmore	,,	,,	16/12/19	974
Charles Robert Adamson	,,	,,	16/12/19	975

RETURN OF ENGINEERS TO WHOM CERTIFICATES OF COMPETENCY WERE ISSUED DURING THE YEAR ENDED 31ST MARCH, 1920—*continued.*

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
Adrian Walton Wilkins	River oil engineer	Restricted limits	16/12/19	976
Percy Edward Gillies	,,	,,	16/12/19	977
William Palmer	,,	,,	16/12/19	978
Herbert William Williams	,,	,,	16/1/20	979
Ernest Edward Taylor	,,	,,	16/1/20	980
George Walker	,,	,,	16/1/20	981
William Skipper	,,	,,	16/1/20	982
John Thomas O'Connor	,,	,,	24/2/20	983
Selwyn Hardiman Watkins	,,	,,	24/2/20	984
Charles Henry Howard Irvine	,,	,,	24/2/20	985
Harding Leaf	,,	,,	24/2/20	986
John Neho	,,	,,	24/2/20	987
George Ballington Whincop	,,	,,	24/2/20	988
George Frederick Stanaway	,,	,,	24/2/20	989
James William Houghton	,,	,,	24/2/20	990
Brown Campbell Wellington	,,	,,	24/2/20	991
Clarence William Basil Gordon	,,	,,	24/2/20	992
Archibald Kenneth Andrew	,,	,,	24/2/20	993
William John Monds	,,	,,	24/2/20	994
Francis Wharfe Phillips	,,	,,	24/2/20	995
Marcus Douglas	,,	,,	24/2/20	996
Archibald Grant Curel	,,	,,	24/2/20	997
Trevor Marshall Allan	,,	,,	24/2/20	998
William Francis McClinchie	,,	,,	24/2/20	999
Allen Hunter	,,	,,	24/2/20	1000
George Henry Rosenfeldt	,,	,,	24/2/20	1001
George Walter Broadley	,,	,,	24/2/20	1002
Joshua Morris	,,	,,	24/2/20	1003
Vivian George William Kitchen	,,	,,	24/2/20	1004
Henry John Day	,,	,,	24/2/20	1005
Matthew Frazer	,,	,,	1/3/20	1006
Harry Kennett	,,	,,	1/3/20	1007
George Wright	,,	,,	2/3/20	1008
Percy Maddock	,,	,,	2/3/20	1009
John Gousmett	,,	,,	2/3/20	1010
Ethelred Arthur Carr	,,	,,	3/3/20	1011
William Mitchell Prentice	,,	,,	3/3/20	1012

RETURN SHOWING THE NUMBER OF MASTERS', MATES', AND ENGINEERS' EXAMINATIONS IN NEW ZEALAND DURING THE YEAR ENDED 31ST MARCH, 1920, SHOWING THE NUMBER OF SUCCESSFUL AND UNSUCCESSFUL CANDIDATES.

Class of Certificate.	Auckland.			Wellington.			Lyttelton.			Dunedin.			Other Places.			Totals.		
	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Pass	Failed.	Total.
Foreign-going masters and mates	12	7	19	18	9	27	6	8	14	..	..	..	..	..	..	36	24	60
Home-trade masters and mates	6	3	9	11	12	23	2	2	4	..	..	..	..	..	..	19	17	36
River-steamer masters	8	1	9	1	..	1	1	..	1	1	..	1	3	..	3	14	1	15
Master, fishing-boat or cargo-vessel under 25 tons register	4	1	5	1	1	2	..	..	..	..	..	..	..	..	..	5	2	7
Compass syllabus	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	1
Seagoing engineers (steam)	31	6	37	38	10	48	9	1	10	19	3	22	14	5	19	111	25	136
River-steamer engineers	7	2	9	..	2	2	2	..	2	1	..	1	6	1	7	16	5	21
Seagoing engineers (mechanical power other than steam)	9	..	9	3	..	3	2	..	2	1	..	1	17	1	18	32	1	33
River engineers (mechanical power other than steam)	38	2	40	4	..	4	5	..	5	2	..	2	70	12	82	119	14	133
Totals	115	22	137	76	35	111	27	11	38	24	3	27	110	19	129	352	90	442

RETURN OF CERTIFICATES OF EXEMPTION FROM EXAMINATION AS THIRD-CLASS ENGINEERS ISSUED DURING THE YEAR ENDED 31ST MARCH, 1919.

Date of Issue.	Name.	Date of Issue.	Name.
June 25, 1919 ..	Wilfred Milne Dawson.	Dec. 12, 1919 ..	Roland Ernest Napier.
July 22, „ ..	William Stanley McLean.	Jan. 27, 1920 ..	Samuel William Spedding.
Nov. 13, „ ..	Albert V. Anderson.	Feb. 7, „ ..	Charles Henry Wilson.

RETURN OF LICENSES AS COLONIAL PILOTS ISSUED IN PURSUANCE OF SECTION 190 OF THE SHIPPING AND SEAMEN ACT, 1908, DURING THE YEAR ENDED 31ST MARCH, 1920.

No. of License.	Date of Issue.	Name of Licensee.	Port of Residence.	Date of Expiry of License.
43	Sept. 30, 1919 ..	Felix Black	Wellington ..	Oct. 8, 1920.
44	Feb. 3, 1920 ..	Charles McArthur	„ ..	Jan. 29, 1921.

RETURN OF LICENSED ADJUSTERS OF COMPASSES IN NEW ZEALAND.

Date of Issue.	Name of Licensee.	Address.
April 9, 1896 ..	Frederick Macbeth	Dunedin.
May 15, „ ..	Robert Strang	„
„ 5, „ ..	George Urquhart Thomson	„
April 27, 1897 ..	Frederick William Cox	Nelson.
May 27, „ ..	Thomas Fernandez	Auckland.
July 27, „ ..	Robert Hatchwell	Lyttelton.
Sept. 1, „ ..	Arthur G. Gifford	Wellington.
Aug. 13, 1898 ..	Herbert John Richardson	„
April 26, 1899 ..	Robert Heddelston Neville	„
June 26, 1900 ..	Charles Frederick Sundstrum	Dunedin.
July 27, „ ..	John Adamson	Auckland.
Nov. 27, „ ..	Thomas Basire	Port Chalmers.
Mar. 27, 1903 ..	George Samuel Hooper	Wellington.
Oct. 19, „ ..	John McLennon McKenzie	„
Nov. 1, 1906 ..	Frederick Pryce Evans	Dunedin.
Feb. 6, 1907 ..	David Todd	„
„ 22, 1909 ..	Norman Macdonald	Bluff.
May 28, „ ..	Charles Cornelius Plunket	Auckland.
Oct. 23, „ ..	Robert Crawford	Wellington.
June 19, 1911 ..	Frederic George Cooper	„
Nov. 16, „ ..	Major William Solloway Lane	Totara North.
„ 3, 1913 ..	Cesar Anthony Colonna	Christchurch.
„ 27, 1914 ..	John Jonathan Elven	„
Feb. 10, 1915 ..	Richard Chamberlain Harbord	Bluff.
Sept. 27, 1918 ..	William Robert Allen	Port Ahuriri.
July 5, 1919 ..	Mathew Lapham Singleton	Auckland.
Mar. 3, 1920 ..	Walter William Hender	Wellington.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED IN NEW ZEALAND DURING THE YEAR ENDED 31ST MARCH, 1920.

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks.
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Admiral	82	50	..	Compound ..	Screw ..	River limits ..	..	..	..	..	
A.H.B.	5	15	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Ahiki	6	35	..	" ..	" ..	" ..	..	..	..	..	
Ahuriri	33	17	..	Compound ..	" ..	" ..	..	..	..	..	
Aio	4	20	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Akaroa	29	28	93	Compound ..	" ..	Home trade ..	1	1	..	..	
Albatross (A'kland)	111	37	..	" ..	" ..	River limits ..	..	..	..	..	
Alert (Wanganui)	5	15	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Alert (Paeroa) ..	†20	6	..	Compound ..	" ..	" ..	..	..	..	..	
Alexander (Nelson)	185	72	335	" ..	Twin-screw	Home trade ..	4	3	..	..	
Alexandra(Rotorua)	4	15	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Alice (Te Kopuru)	4	12	..	" ..	" ..	" ..	..	..	..	..	
Alice (Hokianga) ..	2	6	..	" ..	" ..	" ..	..	..	..	..	
Almora	4	24	..	" ..	" ..	" ..	..	..	..	..	
Amy (Tauranga) ..	2	5	..	" ..	" ..	" ..	..	..	..	..	
Anzac	4	6	..	" ..	" ..	" ..	..	..	..	..	
Aorere	49	16	66	Compound ..	" ..	Home trade ..	2	1	..	..	
Aotea	157	33	..	" ..	" ..	River limits ..	..	..	..	..	
Apanui	135	28	212	Triple-expansion	" ..	Home trade ..	4	2	..	..	
Arahura ..	772	145	1,693	"	Twin-screw	" ..	7	6	3	3	
Aranui	4	10	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Arapawa ..	128	47	289	Triple-expansion	" ..	Home trade ..	4	3	..	..	
Arawa (Rotorua) ..	2	5	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Arctic	2	10	..	" ..	" ..	" ..	..	..	..	..	
Arita	2	4	..	" ..	" ..	" ..	..	..	..	..	
Arizona	4	18	..	" ..	" ..	" ..	..	..	..	..	
Ark (Pukenui) ..	3	2	..	" ..	" ..	" ..	..	..	..	..	
Aroha (Russell) ..	6	16	..	" ..	" ..	" ..	..	..	..	..	
Arrino	2	5	..	" ..	" ..	" ..	..	..	..	..	
Arumai	6	10	..	" ..	" ..	" ..	..	..	..	..	
Atua	2	8	..	" ..	" ..	" ..	..	..	..	..	
Audric	2	8	..	" ..	" ..	" ..	..	..	..	..	
Aupouri	220	55	391	Triple-expansion	Twin-screw	Home trade ..	5	3	..	..	
Aurere	3	8	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Aurora	4	20	..	" ..	" ..	" ..	..	..	..	..	
Averil	3	6	..	" ..	" ..	" ..	..	..	..	..	
Awahou	151	74	297	Compound ..	Twin-screw	Home trade ..	4	3	..	..	
Baden Powell ..	72	30	201	" ..	Screw ..	" ..	2	2	..	..	
Baroona ..	55	24	149	" ..	" ..	" ..	2	2	..	..	
Beldame ..	4	20	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Bell Bird ..	52	15	..	Triple-expansion	" ..	" ..	..	..	..	..	
Belle	5	10	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Benares ..	2	5	..	" ..	" ..	" ..	..	..	..	..	
*Ben Lomond ..	33	15	..	Compound ..	" ..	" ..	..	..	..	..	
Billy	5	9	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Blenheim ..	85	50	204	Compound ..	" ..	Home trade ..	2	2	..	..	
Breeze	286	84	414	Triple-expansion	" ..	" ..	5	3	..	..	
Breta Tui ..	30	40	..	Oil-engine ..	" ..	Foreign trade	1	..	..	..	
Brit	6	16	..	" ..	Twin-screw	River limits ..	..	..	..	..	
Britannia (A'kland)	108	40	..	Non-condensing	Paddle ..	" ..	..	..	..	..	
Britannia (Oneh'ga)	3	13	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Bruce	1	5	..	" ..	" ..	" ..	..	..	..	..	
Bulli	29	24	..	Compound ..	" ..	" ..	..	..	..	..	
Buttercup ..	5	15	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Butterfly ..	5	30	..	" ..	" ..	" ..	..	..	..	..	
Callie	5	35	..	" ..	" ..	" ..	..	..	..	..	
Calm	523	550	755	Surface-cond'sing, triple-expansion	" ..	Home trade ..	5	3	2	3	
Canopus ..	835	250	1,101	Triple-expansion	" ..	" ..	6	3	2	3	
Canterbury (dredge)	521	120	..	Compound ..	Twin-screw	River limits ..	..	..	..	..	
Centaur ..	6	32	..	Oil-engine ..	"	" ..	..	..	..	..	
Chelmsford ..	79	25	57	Compound ..	Screw ..	Home trade ..	2	1	..	..	
Clansman ..	379	99	551	" ..	" ..	" ..	5	3	..	..	
Claymore ..	119	54	347	Triple-expansion	" ..	" ..	4	3	..	..	
Clematis ..	6	24	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Clutha	96	24	..	Compound ..	Stern-wheel paddle	" ..	..	..	..	..	
*Clyde	130	40	..	" ..	Ditto ..	" ..	..	..	..	..	
Cobar (Wellington)	69	40	..	" ..	Screw ..	" ..	..	..	..	..	
Cobar (Tryphena)	4	12	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Colleen	2	4	..	" ..	" ..	" ..	..	..	..	..	
Comet	6	5	..	" ..	" ..	" ..	..	..	..	..	
Condor	188	24	..	Compound ..	Screw each end	" ..	..	..	..	..	
Coquette ..	3	10	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Corinna	791	141	1,039	Compound ..	" ..	Home trade ..	6	3	2	3	
Coronation ..	59	50	..	Oil-engine ..	" ..	" ..	2	..	..	..	

* Surveyed twice. † Under 20 tons.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Countess (Auckland)	57	28	180	Compound ..	Screw ..	Home trade ..	2	2	..	..	
Cowan	30	24	140	" ..	" ..	" ..	1	2	..	..	
Curlew	5	16	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Cygnet (Lyttelton)	66	43	177	Compound ..	" ..	Home trade ..	2	2	..	..	
Cygnet (Mercer) ..	1	8	..	Oil-engine ..	" ..	River limits ..	..	..		..	
Dairymaid (Kohu-kohu)	3	8	..	" ..	" ..	" ..	..	..	..	..	
Daisy	6	20	..	" ..	" ..	" ..	..	..	..	..	
Daphne (Auckland)	100	55	263	Compound ..	" ..	Home trade ..	2	2	..	..	
Dauntless ..	3	16	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Dawn (Auckland)	14	36	..	" ..	Twin-screw	" ..	..	..	..	..	
Dawn (New Ply'th)	4	7	..	" ..	Screw ..	" ..	..	..	..	..	
Defender ..	15	10	..	" .	" ..	" ..	..	..	..	..	
Despatch ..	24	20	..	Compound ..	" ..	Home trade ..	1	1	..	..	
Digger	5	15	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
D'Jinn	6	23	..	" ..	" ..	" ..	..	..	..	..	
Dolphin.. ..	8	8	..	" ..	" ..	" ..	..	..	..	..	
Dominion ..	5	24	..	" ..	" ..	" ..	..	..	..	..	
Doon	1	5	..	" ..	" ..	" ..	..	..	..	..	
Doris (Napier) ..	4	20	..	" ..	" ..	" ..	..	..	..	..	
Doris (Russell) ..	3	12	..	" ..	" ..	" ..	..	..	..	..	
Doris (Picton) ..	2	4	..	" ..	" ..	" ..	..	..	..	..	
Dovey	2	5	..	" ..	" ..	" ..	..	..	..	..	
Dreadnought ..	6	16	..	" ..	" ..	" ..	..	..	..	..	
*Dredge 222 ..	502	140	814	Compound ..	Twin-screw	Home trade ..	5	3	2	3	
Dredge 350 ..	488	117	631	Triple-expansion	"	" ..	5	3	..	..	
Duchess.. ..	137	81	..	"	Screw ..	River limits ..	..	..	..	..	
Duco	2	5	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Eagle (Auckland)..	138	70	..	Compound ..	Paddle ..	" ..	..	..	..	..	
Eagle (Dargaville)	2	6	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Earl	3	8	..	" ..	" ..	" ..	..	..	..	..	
Earnslaw ..	155	80	..	Triple-expansion	Twin-screw	" ..	..	..	..	..	
Echo (Auckland)..	98	103	..	Oil-engine ..	"	Home trade ..	2	..	..	..	
Eclipse	2	8	..	" ..	Screw ..	River limits ..	..	..	..	..	
Edina	4	12	..	" ..	" ..	" ..	..	..	..	..	
Edith	5	7	..	Compound ..	" ..	" ..	..	..	..	..	
Edna	4	14	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Eileen Belle ..	5	30	..	" ..	" ..	" ..	..	..	..	..	
Eileen Ward ..	472	123	..	Triple expansion	Twin-screw	" ..	..	..	..	..	
Elsie (Thames) ..	4	15	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Elsie (Auckland)..	24	30	..	" ..	Twin-screw	" ..	..	..	..	..	
*Elsie (French Pass)	3	5	..	" ..	Screw ..	" ..	..	..	..	..	
Elsie Evans ..	6	20	..	" ..	" ..	" ..	..	..	..	..	
Elsma	3	10	..	" ..	" ..	" ..	..	..	..	..	
Elspie	2	5	..	" ..	" ..	" ..	..	..	..	..	
*Elswick	4	12	..	" ..	" ..	" ..	..	..	..	..	
Emerald ..	4	12	..	" ..	" ..	" ..	..	..	..	..	
Emily	5	25	..	" ..	" ..	" ..	..	..	..	..	
Empress ..	6	18	..	" ..	" ..	" ..	..	..	..	..	
*Endeavour ..	54	30	..	" ..	" ..	Home trade ..	2	..	..	..	
Erin	†20	4	..	Non-condensing	" ..	River limits ..	..	..	..	..	
*Erlin	4	4	..	Compound ..	" ..	" ..	..	..	..	..	
*Erskine	90	35	..	" ..	" ..	" ..	..	..	..	..	
Ethel W. ..	4	18	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Eureka	2	8	..	" ..	" ..	" ..	..	..	..	..	
Eva	5	20	..	" ..	" ..	" ..	..	..	..	..	
Eveline	†20	8	..	Non-condensing	" ..	" ..	..	..	..	..	
Excelsior (Auckl'd)	6	24	..	Oil-engine ..	Twin-screw	Home trade ..	1	..	..	..	
Excelsior ..	5	7	..	" ..	Screw ..	River limits ..	..	..	..	..	
Express (Dunedin)	36	25	86	Compound ..	" ..	Home trade ..	2	1	..	..	
Express (Kawhia)	1	5	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Fairburn ..	60	60	..	" ..	Twin-screw	Home trade ..	2	..	..	..	
Fanny (Timaru) .	3	4	..	" ..	Screw ..	River limits ..	..	..	..	..	
Fanny (Napier) ..	55	30	139	Compound ..	" ..	Home trade ..	2	2	..	..	
Farina	5	16	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Ferro (Queenstown)	3	7	..	" ..	" ..	" ..	..	..	..	..	
Ferro (Auckland)	6	30	..	" ..	" ..	" ..	..	..	..	..	
Fire Float ..	†20	13	..	Compound ..	" ..	" ..	..	..	..	..	
Flirt	4	12	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Flora	2	3	..	" ..	" ..	" ..	..	..	..	..	
*Flora (Hobart) ..	838	180	1,006	Compound ..	" ..	Foreign trade	6	3	2	3	
Florence ..	3	4	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Foam (Tauranga)	3	10	..	" ..	" ..	" ..	..	..	..	..	
Foam (Whangarei)	2	5	..	" ..	" ..	" ..	..	..	..	..	
Frisbie	6	16	..	" ..	" ..	" ..	..	..	..	..	
Gael	55	20	111	Compound ..	" ..	Home trade ..	2	2	..	..	

* Surveyed twice. † Under 20 tons.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks.
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Gannet	10	12	..	Compound	Screw	River limits	..	..	..	..	
Geisha	4	12	..	Oil-engine	"	"	..	..	..	..	
*Gilda	5	12	..	"	"	"	..	..	..	..	
Gisborne Pilot-launch	5	12	..	"	"	"	..	..	..	..	
Gladsome	3	5	..	"	"	"	..	..	..	..	
Glenelg	156	75	252	Compound	"	Home trade	4	3	..	..	
*Glenlee	5	10	..	Oil-engine	"	River limits	..	..	..	..	
Glyn Bird	6	40	..	"	"	"	..	..	..	..	
Gosford	23	30	..	Compound	"	"	..	..	..	..	
Goshawk	122	28	..	"	"	"	..	..	..	..	
Haeremai	6	18	..	Oil-engine	"	"	..	..	..	..	
Hairini	6	25	..	"	"	"	..	..	..	..	
Hananui II	44	58	294	Triple-expansion	"	Home trade	2	3	..	..	
Hapai	364	155	..	"	Twin-screw	River limits	..	..	..	..	
Harmony	2	6	..	Oil-engine	Screw	"	..	..	..	..	
Harutu	1	3	..	"	"	"	..	..	..	..	
Hauiti (Tolaga Bay)	12	20	..	"	"	"	..	..	..	..	
Hauiti (Auckland)	9	4	..	Compound	"	"	..	..	..	..	
Hawera	92	31	192	"	"	Home trade	2	2	..	..	
*Heathcote	94	35	..	"	"	River limits	..	..	..	..	
Heather	6	17	..	Oil-engine	"	"	..	..	..	..	
Hilda	5	20	..	"	"	"	..	..	..	..	
Hina	47	20	..	Compound	"	Home trade	2	1	..	..	
Hinemoa	282	150	..	"	"	Foreign trade	..	..	..	..	Govt. steamer.
Hinewai	6	24	..	Oil-engine	"	River limits	..	..	..	..	
Hipi	16	11	..	Triple-expansion	Twin-screw	"	..	..	..	..	
Hirere	20	16	..	Compound	"	"	..	..	..	..	
Hobsonville	23	15	..	Oil-engine	Screw	"	..	..	..	..	
Horo	3	10	..	"	"	"	..	..	..	..	
Houto	84	45	..	"	"	Home trade	2	..	..	..	
Huia (Wellington)	69	25	121	Compound	"	"	2	2	..	..	
Huia (Auckland)	199	47	..	Oil-engine	"	Foreign trade	4	..	..	..	
Huia (L. Roto'hana)	2	4	..	"	"	River limits	..	..	..	..	
Ian	2	6	..	"	"	"	..	..	..	..	
Ida	3	7	..	"	"	"	..	..	..	..	
Idalia	5	15	..	"	"	"	..	..	..	..	
Ika	6	20	..	"	"	"	..	..	..	..	
Imp	3	4	..	"	"	"	..	..	..	..	
Imperial (Ad'altyB.)	4	8	..	"	"	"	..	..	..	..	
Imperial (Hoki'nga)	3	12	..	"	"	"	..	..	..	..	
Invercargill	123	41	234	Compound	"	Home trade	4	2	..	..	
Iranui	8	10	..	Oil-engine	"	River limits	..	..	..	..	
Irene	4	12	..	"	"	"	..	..	..	..	
Irini	4	15	..	"	"	"	..	..	..	..	
Iris	3	8	..	"	"	"	..	..	..	..	
Isa	3	5	..	"	"	"	..	..	..	..	
Isabel	5	5	..	"	"	"	..	..	..	..	
Isabella de Fraine	76	60	..	"	Twin-screw	Home trade	2	..	..	..	
Isobel	6	6	..	"	Screw	River limits	..	..	..	..	
Ivy	8	30	..	"	"	"	..	..	..	..	
J.D.O.	38	28	..	Compound	"	"	..	..	..	..	
Jersey Lily	4	12	..	Oil-engine	"	"	..	..	..	..	
Jimmy	2	6	..	"	"	"	..	..	..	..	
John	134	90	185	Compound	"	Home trade	4	2	..	..	
John Anderson	36	20	..	"	"	River limits	..	..	..	..	
J. T. Stewart	5	47	..	Oil-engine	"	"	..	..	..	..	
Jumbo	4	32	..	"	"	"	..	..	..	..	
Kahika	516	98	702	Triple-expansion	"	Home trade	5	3	..	..	
Kahu (Auckland)	25	40	..	Oil-engine	Twin-screw	"	1	..	..	..	
Kahu (Napier)	96	40	235	Compound	Screw	"	2	2	..	..	
*Kaiaia	24	28	..	Oil-engine	Twin-screw	"	..	..	..	..	
Kaimaka	11	24	..	"	"	River limits	..	..	..	..	
Kaione	347	..	1,002	"	"	"	..	..	..	..	
Kaipatiki	23	10	..	Compound	Screw	"	..	..	..	..	
Kaipara	†20	4	..	"	"	"	..	..	..	..	
Kaitoa	118	65	298	"	Twin-screw	Home trade	4	3	..	..	
Kaituna	1,208	200	988	Triple-expansion	Screw	Foreign trade	7	3	2	3	
Kamo	725	159	745	"	"	"	6	3	2	3	
Kamona	903	117	750	"	"	"	6	3	2	3	
Kanieri (L. Kanieri)	2	4	..	Oil-engine	"	River limits	..	..	..	..	
Kanieri (Auckland)	115	20	162	Compound	"	Home trade	4	2	..	..	
Kapi	10	14	..	Oil-engine	"	River limits	..	..	..	..	
Kapiti	114	35	209	Compound	"	Home trade	4	2	..	..	
*Kapua	12	31	..	Oil-engine	"	"	1	..	..	..	
Kapuni	96	30	190	Compound	"	"	2	2	..	..	
Karaka	10	22	..	Triple-expansion	"	River limits	..	..	..	..	

* Surveyed twice. † Under 20 tons.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued*.

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Karamu	452	102	745	Triple-expansion	Screw ..	Home trade ..	5	3	..	..	
Karetai	2	5	..	Oil-engine ..	„ ..	River limits ..	..	..	..	..	
Karma	3	28	..	„ ..	„ ..	„ ..	..	..	..	..	
Karora	6	30	..	„ ..	„ ..	„ ..	..	..	..	..	
Karori	1,194	147	893	Triple-expansion	„ ..	Foreign trade	7	3	2	3	
Kararo	52	17	..	Compound ..	„ ..	River limits ..	..	..	..	..	
Karu	197	27	140	„ ..	„ ..	Home trade ..	4	2	..	..	
Kate	..	..	5	Non-condensing	„ ..	River limits ..	..	..	..	..	
*Katie S. ..	6	12	..	Oil-engine ..	„ ..	Home trade ..	..	..	..	..	
Kauri (Dunedin) ..	1,830	304	1,153	Triple-expansion	„ ..	Foreign trade	8	3	2	3	
Kawau (Auckland)	53	20	96	Compound ..	„ ..	Home trade ..	2	1	..	..	
Kawau (Auckland)	37	15	..	„ ..	„ ..	River limits ..	..	..	..	..	
Kelvena	4	7	..	Oil-engine ..	„ ..	„ ..	..	..	..	..	
Kelvin	2	7	..	„ ..	„ ..	„ ..	..	..	..	..	
Kennedy ..	131	38	159	Compound ..	Twin-screw	Home trade ..	4	2	..	..	
Kerepeehi ..	55	27	137	„ ..	„	River limits ..	..	..	..	..	
Kestrel	159	43	..	„ ..	Screw each end	„ ..	..	..	..	..	
*Kia Ora	7	8	..	Oil-engine ..	Screw ..	„ ..	..	..	..	..	
Kina	5	10	..	„ ..	„ ..	„ ..	..	..	..	..	
Kini	702	130	702	Triple-expansion	„ ..	Home trade ..	6	3	..	..	
Kinohaku ..	6	8	..	Oil-engine ..	„ ..	River limits ..	..	..	..	..	
Kirita	6	30	..	„ ..	Twin-screw	„ ..	..	..	..	..	
Kiritona ..	75	150	..	„ ..	„	Home trade ..	2	..	..	..	
Kittawa	708	120	723	Triple-expansion	Screw ..	„ ..	6	3	..	..	
Kiwi (Dunedin) ..	6	14	..	Oil-engine ..	„ ..	River limits ..	..	..	..	..	
Kiwi (Whangarei)	4	28	..	„ ..	„ ..	„ ..	..	..	..	..	
Koau	76	170	..	„ ..	Twin-screw	Home trade ..	2	..	..	..	
Kohatu	2	8	..	„ ..	Screw ..	River limits ..	..	..	..	..	
Koheroa ..	4	12	..	„ ..	„ ..	„ ..	..	..	..		
Kohi	20	60	..	„ ..	Twin-screw	Home trade ..	1	..	..	..	
Koi	55	32	..	Compound ..	„	River limits ..	..	..	..	..	
Kokiri (Russell) ..	4	10	..	Oil-engine ..	Screw ..	„ ..	..	..	..	..	
Kokiri (Wellington)	719	135	741	Triple-expansion	„ ..	Foreign trade	6	3	..	..	
*Komata ..	1,294	260	1,253	„	„ ..	Home trade ..	8	3	2	3	
Konini	5	5	..	Oil-engine ..	„ ..	River limits ..	..	..	..	..	
Kopu	18	13	..	Non-condensing	Paddle ..	„ ..	..	..	..	..	
Koroi (Hokianga)	3	7	..	Oil-engine ..	Screw ..	„ ..	..	..	..	..	
Koroi (Auckland)	..	10	..	Quadruple-expansion	„ ..	„ ..	..	..	..	..	
Koromiko ..	1,541	313	1,450	Triple-expansion	„ ..	Foreign trade	8	6	3	3	
Kotare	83	20	138	Compound ..	„ ..	Home trade ..	2	2	..	..	
Kotiri	4	14	..	Oil-engine ..	„ ..	River limits ..	..	..	..	..	
Kotiti	42	14	88	Compound ..	„ ..	Home trade ..	2	1	..	..	
Koutu	2	5	..	Oil-engine ..	„ ..	River limits ..	..	..	..	..	
Koutunui ..	98	26	126	Compound ..	Twin-screw	Home trade ..	2	2	..	..	
Kowhai	404	128	503	Triple-expansion	Screw ..	„ ..	5	3	..	..	
Kurow	1,564	333	1,754	„	„ ..	Foreign trade	8	6	3	3	
Lady Eva ..	3	120	..	Oil-engine ..	„ ..	Home trade ..	1	..	..	..	
Lady Moira ..	2	5	..	„ ..	„ ..	River limits ..	..	..	..	..	
La Mascotte ..	4	10	..	„ ..	„ ..	„ ..	..	..	..	..	
La Reine ..	6	20	..	„ ..	„ ..	„ ..	..	..	..	..	
*Lassie	3	6	..	„ ..	„ ..	„ ..	..	..	..	..	
Laurel	3	10	..	„ ..	„ ..	„ ..	..	..	..	..	
*Lena	2	8	..	„ ..	„ ..	„ ..	..	..	..	..	
Lena Gladys ..	5	27	..	„ ..	Twin-screw	Home trade ..	1	..	..	..	
Lighter	5	10	..	„ ..	Screw ..	River limits ..	..	..	..	..	
Lily (Riverton) ..	3	4	..	„ ..	„ ..	„ ..	..	..	..	..	
Linda	3	9	..	„ ..	„ ..	„ ..	..	..	..	..	
Lion (Hokianga) ..	3	5	..	„ ..	„ ..	„ ..	..	..	..	..	
*Lion (Pelorus Sd.)	2	5	..	„ ..	„ ..	„ ..	..	..	..	..	
Lion (Auckland) ..	4	8	..	Compound ..	„ ..	„ ..	..	..	..	..	
Lizette	21	16	..	Oil-engine ..	„ ..	„ ..	..	..	..	..	
Lomen	..	6	..	Compound ..	„ ..	„ ..	..	..	..	..	
Lone Star ..	4	20	..	Oil-engine ..	„ ..	„ ..	..	..	..	..	
Lorna	4	10	..	„ ..	„ ..	„ ..	..	..	..	..	
Loyalty	24	35	78	Compound ..	„ ..	Home trade ..	1	1	..	..	
Lyttelton ..	1	133	..	„ ..	Twin-screw	River limits ..	..	..	..	..	
Lyttelton ..	24	108	264	„ ..	Paddle ..	Home trade ..	1	3	..	..	
Mac	2	6	..	Oil engine ..	Screw ..	River limits ..	..	..	..	..	
Magic	58	60	..	„ ..	Twin-screw	Home trade ..	2	..	..	..	
Mahanga ..	4	17	..	„ ..	„	River limits ..	..	..	..	..	
Mahau	3	5	..	„ ..	Screw ..	„ ..	..	..	..	..	
Maheno	3,318	600	6,188	Turbine ..	Twin-screw	Foreign trade	12	18	9	3	
Mahino	6	5	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Mahoe	14	56	..	„ ..	„ ..	Home trade ..	1	..	..	..	
Mahua	353	28	..	Compound ..	Twin-screw	River limits ..	..	..	..	..	
Mahurangi ..	95	80	183	„ ..	Screw ..	Home trade ..	2	2	..	..	

* Surveyed twice.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Maidi	12	11	..	Compound	Screw	River limits	..	..	..	..	
Majestic	3	7	..	Oil-engine	"	"	..	..	..	..	
Makere	3	4	..	"	"	"	..	..	..	..	
Mako (Napier)	247	65	413	Triple-expansion	"	Home trade	5	3	..	..	
Makura (Taupiri)	2	7	..	Oil engine	"	River limits	..	..	..	..	
Mana (Lyttelton)	51	90	..	Compound	Paddle	"	..	..	..	..	
Mana (Wellington)	77	25	135	"	Screw	Home trade	2	2	..	..	
Manaia	630	104	1,224	Triple-expansion	Twin-screw	"	7	3	2	3	
Manu	2	8	..	Oil-engine	Screw	River limits	..	..	..	..	
Manukau	4	30	..	"	"	"	..	..	..	..	
Manukotuku	3	16	..	"	"	"	..	..	..	..	
Manurere	..	4	..	Quadruple-expansion	"	"	..	..	..	..	
Manuwai (Taur'nga)	15	50	..	Oil-engine	"	"	..	..	..	..	
Maori (Auckland)	6	28	..	"	"	"	..	..	..	..	
Maori (Taupo)	2	5	..	"	"	"	..	..	..	..	
Maori (Stewart Is.)	3	5	..	"	"	"	..	..	..	..	
Maori (Picton)	6	8	..	"	"	"	..	..	..	..	
Maori (London)	1,567	5,600	..	Turbine	Triple-screw	Home trade	9	15	9	3	
Mapourika	718	130	1,248	Triple-expansion	Screw	"	7	3	2	3	
Mararoa (Rotorua)	2	6	..	Oil-engine	"	River limits	..	..	..	..	
Mararoa (Dunedin)	1,381	530	3,027	Triple-expansion	"	Home trade	8	9	6	3	
Mareno	4	5	..	Oil-engine	"	River limits	..	..	..	..	
Maribel	6	16	..	"	"	"	..	..	..	..	
Maritana	6	14	..	"	"	"	..	..	..	..	
Marne	4	10	..	"	"	"	..	..	..	..	
Mary	5	7	..	"	"	"	..	..	..	..	
Mascotte	..	6	..	Compound	"	"	..	..	..	..	
Matakakiri	3	9	..	Oil-engine	"	"	..	..	..	..	
Matarere	..	2	..	Compound	"	"	..	..	..	..	
Matariki	5	16	..	Oil-engine	"	"	..	..	..	..	
Matatua	4	16	..	"	"	"	..	..	..	..	
Matea	2	5	..	"	"	"	..	..	..	..	
Maudie II	2	20	..	"	"	"	..	..	..	..	
Mavis (Stewart Is.)	4	5	..	"	"	"	..	..	..	..	
Mavis (Whakapirau)	3	14	..	"	"	"	..	..	..	..	
Mavis (Picton)	6	12	..	"	"	"	..	..	..	..	
Mavis (Onehunga)	2	6	..	"	"	"	..	..	..	..	
Mavora	4	10	..	"	"	"	..	..	..	..	
May	1	4	..	"	"	"	..	..	..	..	
May Howard	35	45	..	"	"	Home trade	2	..	..	..	
M.C.	3	6	..	"	"	River limits	..	..	..	..	
Melrose	1	4	..	"	"	"	..	..	..	..	
Melville	4	10	..	"	"	"	..	..	..	..	
Merita	3	8	..	"	"	"	..	..	..	..	
Merlin (Picton)	3	5	..	"	"	"	..	..	..	..	
Merlin (Foxton)	4	4	..	Compound	"	"	..	..	..	..	
Midlothian II	4	10	..	Oil-engine	"	"	..	..	..	..	
Mikado	6	12	..	"	"	"	..	..	..	..	
*Minoru	3	10	..	"	"	"	..	..	..	..	
Miro	3	5	..	"	"	"	..	..	..	..	
*Mizpah	5	20	..	"	"	"	..	..	..	..	
Moa	5	4	..	"	"	"	..	..	..	..	
Moana (Tryphena)	2	5	..	"	"	"	..	..	..	..	
Moana (Picton)	4	8	..	"	"	"	..	..	..	..	
Moana (London)	2,415	372	3,757	Triple-expansion	"	Foreign trade	10	9	6	3	
Moata	3	5	..	Oil-engine	"	River limits	..	..	..	..	
Moerangi	5	16	..	"	"	"	..	..	..	..	
Mokoia (Rotorua)	3	14	..	"	"	"	..	..	..	..	
Mokoia (London)	2,112	255	1,892	Triple-expansion	"	Foreign trade	10	6	3	3	
*Molly	3	15	..	Oil-engine	"	River limits	..	..	..	..	
Mona	2	5	..	"	"	"	..	..	..	..	
Monica	3	12	..	"	"	"	..	..	..	..	
Monica II	29	20	..	Compound	"	"	..	..	..	..	
Monowai	2,137	290	2,615	Triple-expansion	"	Home trade	10	9	3	3	
Morning Light	92	100	..	Oil-engine	"	"	2	..	..	..	
Mororo	2	5	..	"	"	River limits	..	..	..	..	
Moturata	13	25	..	"	"	"	..	..	..	..	
*Mountaineer	66	50	..	Compound	Paddle	"	..	..	..	..	
Muriel	22	18	..	"	Screw	Home trade	1	2	..	..	
Muritai	3	5	..	Oil-engine	"	River limits	..	..	..	..	
Muriwai	6	55	..	"	"	"	..	..	..	..	
Nada	1	6	..	"	"	"	..	..	..	..	
*Nancy (Glenorchy)	4	10	..	"	"	"	..	..	..	..	
Nancy (Whangarei)	2	10	..	"	"	"	..	..	..	..	
Nancibel	5	25	..	"	"	"	..	..	..	..	
Natone	50	24	..	Compound	"	"	..	..	..	..	
Naumai	5	9	..	Oil-engine	"	"	..	..	..	..	
Nautilus (New Brighton)	4	18	..	"	"	"	..	..	..	..	

* Surveyed twice.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks.
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
*Navua	1,773	220	1,901	Triple-expansion	Twin-screw	Foreign trade	9	6	3	3	
Nellie	4	15	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Nellie Mason ..	14	15	..	" ..	" ..	" ..	..	..	..	..	
Neptune ..	4	14	..	" ..	" ..	" ..	..	..	..	..	
New Zealand ..	5	1½	..	Non-condensing	" ..	" ..	..	..	..	..	
Ngahere ..	556	118	745	Triple-expansion	" ..	Home trade ..	5	3	..	..	
Ngaire	2	5	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Ngakuta ..	944	248	1,236	Triple-expansion	" ..	Foreign trade	6	3	2	3	
Ngapuhi ..	299	160	721	"	Twin-screw	Home trade ..	5	3	..	..	
Ngarita ..	4	18	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Ngatea	6	14	..	Non-condensing	" ..	" ..	..	..	..	..	
Ngatiawa ..	220	55	413	Triple-expansion	Twin-screw	Home trade ..	5	3	..	..	
Ngatoro.. ..	584	118	751	"	Screw ..	" ..	5	3	..	..	
Ngoiro	139	52	..	"	Screw each end	River limits ..	..	..	..	..	
Niagara ..	4	14	..	Oil-engine ..	Screw ..	"	..	..	..	..	
Nick	6	25	..	" ..	" ..	" ..	..	..	..	..	
Nicola	4	10	..	" ..	" ..	" ..	..	..	..	..	
Nikau	98	55	274	Compound ..	Twin-screw	Home trade ..	2	3	..	..	
*Nile	18	12	"	" ..	Screw ..	" ..	1	1	..	..	
Nita	6	10	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Nora Niven ..	66	35	187	Triple-expansion	" ..	Home trade ..	2	2	..	..	
Norval	50	20	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Nor-west ..	6	15	..	" ..	" ..	Home trade ..	1	..	..	..	
Odin	3	40	..	" ..	" ..	River limits ..	..	..	..	..	
Oei	5	7	..	" ..	" ..	" ..	..	..	..	..	
Ohinemuri ..	73	30	72	Compound ..	" ..	Home trade ..	2	1	..	..	
Ohura	34	25	..	Condensing ..	Twin-screw	River limits ..	..	..	..	..	
Oleo	5	20	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Olga	4	10	..	" ..	" ..	" ..	..		..	..	
Oline	2	10	..	" ..	" ..	" ..	..	..	..	..	
Olive	6	32	..	" ..	" ..	" ..	..	..	..	..	
Olive Jean ..	6	25	..	" ..	" ..	" ..	..	..	..	..	
Olivene	4	18	..	" ..	" ..	" ..	..	..	..	..	
Omakura ..	2	12	..	" ..	" ..	" ..	..	..	..	..	
Omana	49	14	..	Compound ..	" ..	" ..	..	..	..	..	
*Omati	6	35	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Omawi	14	20	..	" ..	Stern-wheel	" ..	..	..	..	..	
Omokoroa ..	5	15	..	" ..	Screw ..	" ..	..	..	..	..	
Onawe	5	25	..	" ..	" ..	" ..	..	..	..	..	
Oneroa	29	15	..	Compound ..	" ..	" ..	..	..	..	..	
Onewa	31	16	..	" ..	" ..	" ..	..	..	..	..	
Ongarue ..	9	53	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Opaia	5	23	..	" ..	" ..	" ..	..	..	..	..	
Oparau	5	5	..	" ..	" ..	" ..	..	..	..	..	
Opawa	64	18	74	Compound ..	" ..	Home trade ..	2	1	..	..	
Oranga	4	16	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Orepuki.. ..	226	78	407	Compound ..	" ..	Home trade ..	4	3	..	..	
Orewa	37	17	..	" ..	" ..	River limits ..	..	..	..	..	
Orini	19	120	..	Oil-engine ..	Twin-screw	Home trade ..	1	..	..	..	
*Orira	1	4	..	" ..	Screw ..	River limits ..	..	..	..	..	
Orongo	5	30	..	" ..	" ..	" ..	..	..	..	..	
*Oropi	12	16	..	" ..	" ..	" ..	..	..	..	..	
Osprey (Raglan) ..	1	4	..	" ..	" ..	" ..	..	..	..		
Osprey (Auckland)	138	70	..	Compound ..	Paddle ..	" ..	..	..	..	..	
Otakou	24	13	..	" ..	Screw ..	" ..	..	..	..	..	
Otunui	12	75	..	Oil-engine ..	" ..	" ..	..	..	..	..	
*Outlaw	5	30	..	" ..	" ..	" ..	..	..	..	..	
Ozone	4	10	..	" ..	" ..	" ..	..	..	..	..	
Paeroa	45	25	..	Compound ..	" ..	Home trade ..	1	1	..	..	
Paihia	4	15	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Palona.. ..	1,735	443	2,195	Triple-expansion	" ..	Foreign trade	9	9	3	3	
Pania	35	11	..	Compound ..	" ..	River limits ..	..	..	..	..	
Parenga.. ..	4	6	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Parera	6	4	..	Non-condensing	" ..	" ..	..	..	..	..	
Paritutu ..	233	90	648	Triple-expansion	Twin-screw	" ..	..	..	..	..	
Paroto	57	120	..	Oil-engine ..	"	Home trade ..	1	..	..	..	
Pateena ..	550	250	1,973	Compound ..	Screw ..	" ..	6	6	3	3	
Patiti	..	15	..	Oil engine ..	" ..	River limits ..	..	..	..	..	
Pearl (Queenstown)	2	6	..	" ..	" ..	" ..	..	..	..	..	
Pearl (Kaipara) ..	9	7	..	Non-condensing	" ..	" ..	..	..	..	..	
Pearl Kasper ..	16	22	..	Oil-engine ..	" ..	Home trade ..	1	..	..	..	
Peerless ..	4	26	..	" ..	" ..	River limits ..	..	..	..	..	
Pelican ..	62	57	256	Triple-expansion	Twin-screw	" ..		..	..	..	
Peregrine ..	162	52	..	"	Screw each end	" ..	..	..	..	..	
Pet	6	..	..	Oil-engine ..	Twin-screw	" ..	..	..	..	..	
Petrel (Onehunga)	6	15	..	" ..	Screw ..	" ..	..	..	..	..	

* Surveyed twice.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Petrel (Picton)	2	20	..	Oil-engine	Screw	River limits	..	..	..	..	
Phantom	18	11	140	Compound	"	Home trade	1	2	..	..	
Phyllis (Te Kopuru)	5	2	..	"	"	River limits	..	..	..	..	
Phyllis (Russell)	4	15	..	Oil-engine	"	"	..	..	..	..	
Pihinga	2	5	..	"	"	"	..	..	..	..	
Pikau	3	6	..	"	"	"	..	..	..	..	
Pilot (Auckland)	5	18	..	"	"	"	..	..	..	..	
Pilot (Dunedin)	5	12	..	"	"	"	..	..	..	..	
Pioneer	1	4	..	"	"	"	..	..	..	..	
Pitoitoi	34	20	..	Compound	"	"	..	..	..	..	
Pleiades	3	12	..	Oil-engine	"	"	..	..	..	..	
Plucky	29	40	259	Compound	"	Home trade	1	3	..	..	
Poherua	716	128	717	Triple-expansion	"	"	6	3	..	..	
*Pono	30	52	..	Oil-engine	Twin-screw	River limits	..	..	..	..	
Ponui	3	62	..	"	Screw	"	..	..	..	..	
Portare	6	24	..	"	"	"	..	..	..	..	
Presto	..	3	..	Compound	"	"	..	..	..	..	
Pretoria	2	8	..	Oil-engine	"	"	..	..	..	..	
Princess	5	5	..	"	"	"	..	..	..	..	
Pupuke	68	50	..	Compound	Screw each end	"	..	..	..	..	
Purau	33	30	..	"	Twin-screw	"	..	..	..	..	
Putiki	168	60	321	"	Screw	Home trade	4	3	..	..	
*P.W.D.	2	10	..	Oil-engine	"	River limits	..	..	..	..	
Queen	2	6	..	"	"	"	..	..	..	..	
Queen of Beauty	4	16	..	"	"	"	..	..	..	..	
Rainbow	4	18	..	"	"	"	..	..	..	..	
Rakanoa	1,367	200	883	Triple-expansion	"	Foreign trade	7	3	2	3	
Rakino	3	8	..	Compound	"	River limits	..	..	..	..	
Rakiura (Bluff)	13	10	..	Oil-engine	"	Home trade	1	..	..	..	
Ralaco (Kawhia)	2	10	..	"	"	River limits	..	..	..	..	
Rangapuhi	2	5	..	"	"	"	..	..	..	..	
Rangi II	2	10	..	"	"	"	..	..	..	..	
*Rarawa	460	140	1,114	Triple-expansion	Twin-screw	Home trade	6	3	2	3	
Rawhiti (Parenga)	2	5	..	Oil-engine	Screw	River limits	..	..	..	..	
Rawhiti (Auckland)	5	5	..	"	"	"	..	..	..	..	
*Redwing	5	30	..	"	"	"	..	..	..	..	
Regulus	232	150	694	Triple-expansion	Twin-screw	Home trade	4	3	..	..	
*Rehutai	12	10	..	Compound	Screw	River limits	..	..	..	..	
Reliance	5	12	..	Oil-engine	"	"	..	..	..	..	
Reo (Whangarei)	6	32	..	"	"	"	..	..	..	..	
Reo (Hamilton)	1	5	..	"	"	"	..	..	..	..	
Rere	4	5	..	"	"	"	..	..	..	..	
Reremoana	14	50	..	"	"	"	..	..	..	..	
Result	19	10	..	Compound	"	"	..	..	..	..	
Revenge	6	14	..	Oil-engine	"	"	..	..	..	..	
Rhodesia	4	7	..	"	"	"	..	..	..	..	
Rimu (Invercargill)	28	18	..	"	Twin-screw	"	..	..	..	..	
Rimu (Thames)	6	16	..	"	Screw	"	..	..	..	..	
Rimu (Auckland)	169	95	518	Triple-expansion	Twin-screw	Home trade	4	3	..	..	
Ripple (Onehunga)	8	5	..	Oil-engine	Screw	River limits	..	..	..	..	
Ripple (Napier)	187	80	270	Triple-expansion	"	Home trade	4	3	..	..	
Rita (Invercargill)	5	11	..	Compound	"	"	1	1	..	..	
Rita (Mercer)	4	10	..	Oil-engine	"	River limits	..	..	..	..	
Rita (Hokianga)	2	4	..	"	"	"	..	..	..	..	
Riverton	5	8	..	"	"	"	..	..	..	..	
Roamer	3	12	..	"	"	"	..	..	..	..	
Roko	3	12	..	"	"	"	..	..	..	..	
Rona	4	12	..	"	"	"	..	..	..	..	
Ronaki	5	6	..	"	"	"	..	..	..	..	
Ronomore	2	14	..	"	"	"	..	..	..	..	
*Rosa	4	10	..	"	"	"	..	..	..	..	
Rosamond	462	90	444	Compound	"	Home trade	5	3	..	..	
Rose (Ngunguru)	2	4	..	Oil-engine	"	River limits	..	..	..	..	
Rose (Whangarei)	4	10	..	"	"	"	..	..	..	..	
Rotoiti (Rotorua)	5	30	..	"	"	"	..	..	..	..	
Rotokohu	11	8	..	Compound	"	"	..	..	..	..	
Rotorua No. 1	1	2	..	Oil-engine	"	"	..	..	..	..	
Ruahine	5	12	..	"	"	"	..	..	..	..	
Ruawai	177	52	..	Compound	"	"	..	..	..	..	
Rubi Seddon	349	80	..	"	Twin-screw	"	..	..	..	..	
Ruby	3	8	..	Oil-engine	Screw	"	..	..	..	..	
*Ruru (Auckland)	14	10	..	Compound	"	"	..	..	..	..	
Ruru (Napier)	62	50	213	"	"	Home trade	2	2	..	..	
Sambo	5	40	..	Oil-engine	"	River limits	..	..	..	..	
*Samson II	3	16	..	"	"	"	..	..	..	..	
*Samson	4	16	..	"	"	"	..	..	..	..	

* Surveyed twice.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks.
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Savaii	9	16	64	Condensing ..	Screw ..	Home trade ..	1	1	..	..	
*Scarboro ..	5	10	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
*Scout (Kohukohu)	1	9	..	" ..	" ..	" ..	..	..	..	..	
Scout (Russell) ..	4	20	..	" ..	" ..	" ..	1	..	..	..	
Sea Bird II ..	6	16	..	" ..	" ..	" ..	..	..	..	..	
Sea Breeze ..	4	10	..	" ..	" ..	" ..	..	..	..	..	
Seamew ..	2	6	..	" ..	" ..	" ..	..	..	..	..	
Sea Queen I ..	6	25	..	" ..	" ..	" ..	..	..	..	..	
Secret	4	10	..	" ..	" ..	" ..	..	..	..	..	
Settler	6	18	..	" ..	" ..	" ..	..	..	..	..	
Shamrock (W'gt'n)	60	120	..	" ..	Twin-screw	" ..	..	..	..	..	
Shamrock Leaf ..	6	20	..	" ..	Screw ..	" ..	..	..	..	..	
Sierra	5	16	..	" ..	" ..	" ..	..	..	..	..	
Silver Bell ..	2	7	..	" ..	" ..	" ..	..	..	..	..	
Silver Cloud ..	3	10	..	" ..	" ..	" ..	..	..	..	..	
Simplon ..	69	75	..	Compound ..	" ..	Home trade ..	2	1	..	..	
Sir Wm. Wallace	30	20	..	" ..	" ..	River limits ..	..	..	..	..	
Sneaker ..	6	5	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Sonoma (Kaipara)	..	13	..	Non-condensing	" ..	" ..	..	..	..	..	
Sonoma (Hokianga)	4	10	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Southern Cross ..	403	117	544	Triple-expansion	Twin-screw	Foreign trade	6	3	..	..	
Sparrowhawk ..	98	32	..	Compound ..	Screw each end	River limits ..	..	..	..	..	
Special	5	16	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Speedy	3	5	..	" ..	" ..	" ..	..	..	..	..	
Speedwell ..	4	24	..	" ..	" ..	" ..	..	..	..	..	
*Spray (Ngunguru)	2	8	..	" ..	" ..	" ..	..	..	..	..	
Spray (Wanganui)	2	5	..	" ..	" ..	" ..	..	..	..	..	
Standard ..	9	10	..	" ..	" ..	" ..	..	..	..	..	
Stanley	2	8	..	" ..	" ..	" ..	..	..	..	..	
Stella (Auckland)	122	90	238	Compound ..	" ..	Foreign trade	4	2	..	..	
Stella (Mahau) ..	2	5	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Sterling	4	28	..	" ..	" ..	" ..	..	..	..	..	
*St. George ..	2	8	..	" ..	" ..	" ..	..	..	..	..	
St. Omer ..	2	5	..	" ..	" ..	" ..	..	..	..	..	
Storm	186	70	276	Compound ..	" ..	Home trade ..	4	3	..	..	
*Sumner ..	94	35	..	" ..	" ..	River limits ..	..	..	..	..	
*Sunbeam ..	5	8	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Swallow ..	2	5	..	" ..	" ..	" ..	..	..	..	..	
Sybil	6	30	..	" ..	" ..	" ..	..	..	..	..	
Sylvia	4	9	..	" ..	" ..	" ..	..	..	..	..	
Tahawai ..	9	14	..	" ..	" ..	" ..	..	..	..	..	
Taheke	3	12	..	" ..	" ..	" ..	..	..	..	..	
Tahiti	3,841	1,452	5,263	Triple-expansion	Twin-screw	Foreign trade	14	12	6	3	
Taihoa	3	20	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Tainui	57	24	146	Compound ..	" ..	Home trade ..	2	2	..	..	
Tainui	5	30	..	Oil engine ..	" ..	River limits ..	..	..	..	..	
Taipo	13	12	..	" ..	" ..	" ..	..	..	..	..	
Tairua	3	4	..	" ..	" ..	" ..	..	..	..	..	
Takitumo ..	2	5	..	" ..	" ..	" ..	..	..	..	..	
Talune	1,370	255	1,592	Triple-expansion	" ..	Foreign trade	8	6	3	3	
Tamure	6	10	..	Oil-engine ..	Twin-screw	River limits ..	..	..	..	..	
Tanfield Lea ..	3	12	..	" ..	Screw ..	" ..	..	..	..	..	
Tangaroa ..	109	70	..	Compound ..	Twin-screw	" ..	..	..	..	..	
Taniwha (dredge)	16	16	..	Non-condensing	Screw ..	" ..	..	..	..	..	
Taniwha (Auckland)	191	40	..	Compound ..	Twin-screw	" ..	..	..	..	..	
Tapuwae ..	4	15	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Tarawera ..	1,241	250	1,404	Compound ..	" ..	Foreign trade	8	6	3	3	
Tarewai	11	11	..	Condensing ..	" ..	River limits ..	..	..	..	..	
Tasman	87	45	191	Compound ..	Twin-screw	Home trade ..	2	2	..	..	
Taupiri	3	7	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
*Tauri	6	16	..	" ..	" ..	" ..	..	..	..	..	
Tauwharepuru ..	2	20	..	" ..	" ..	" ..	..	..	..	..	
Tawera (Lake Te Anau)	..	25	..	Compound ..	" ..	" ..	..	..	..	..	
Tawera (Auckland)	44	40	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Te Anau	957	250	1,162	Compound ..	" ..	Home trade ..	6	3	2	3	
Te Aroha ..	57	85	..	Oil-engine ..	Twin-screw	" ..	2	..	..	..	
Te Awhina ..	87	99	420	Triple-expansion	"	" ..	2	3	..	..	
Te Kooti ..	2	5	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Te Pioneer ..	25	13	..	Compound ..	" ..	" ..	..	..	..	..	
Tepua	3	10	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Terawhiti ..	102	99	846	Triple-expansion	" ..	Home trade ..	4	3	2	3	
Teriruka ..	4	6	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Te Teko	56	120	..	" ..	Twin-screw	Home trade ..	2	..	..	..	
Te Toa	9	70	..	" ..	"	River limits ..	..	..	..	..	
Te Tui	31	32	..	" ..	"	" ..	..	..	..	..	
Te Waipounamu ..	20	8	..	" ..	Screw ..	Home trade ..	1	1	..	..	

* Surveyed twice.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Te Whaka ..	141	45	..	Compound ..	Screw ..	River limits ..	..	..	..	..	
Te Wiremu ..	4	14	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Thelma	3	5	..	" ..	" ..	" ..	..	..	..	..	
The Minerva ..	20	14	..	Compound ..	Twin-screw	" ..	..	..	..	..	
*The Pines ..	1	2	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Theresa Ward ..	9	95	476	Triple-expansion	" ..	Home trade ..	1	3	..	..	
Thistle	77	90	..	Oil-engine ..	Twin-screw	River limits ..	..	..	..	..	
Thomas King ..	70	16	..	Compound ..	Screw ..	" ..	..	..	..	..	
Thor	6	12	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Tilikum	7	13	..	" ..	" ..	" ..	..	..	..	..	
Timona	3	8	..	" ..	" ..	" ..	..	..	..	..	
Tio	4	12	..	" ..	" ..	" ..	..	..	..	..	
Tiri	6	20	..	" ..	" ..	" ..	..	..	..	..	
Tiroa	93	31	130	Compound ..	" ..	" ..	..	..	..	..	
Tofua	2,634	354	3,426	Triple-expansion	Twin-screw	Foreign trade	11	9	6	3	
Togo	..	14	..	Compound ..	"	River limits ..	..	..	..	..	
Toiler	22	13	..	" ..	Screw ..	Home trade ..	1	1	..	..	
Toitoi	5	18	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Tongariro ..	9	8	..	Compound ..	" ..	" ..	..	..	..	..	
*Torea	24	60	..	Oil-engine ..	Twin-screw	" ..	..	..	..	..	
Tot	6	16	..	" ..	Screw ..	" ..	..	..	..	..	
*Tuahine ..	20	14	..	" ..	" ..	" ..	..	..	..	..	
Tuatea (Dunedin)	58	28	228	Compound ..	" ..	Home trade ..	2	2	..	..	
Tuatea (Raglan) ..	4	8	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
*Tuatu	20	60	..	" ..	Twin-screw	" ..	..	..	..	..	
Tuhoe	98	120	..	" ..	"	Home trade ..	7	..	..	..	
Tui (Akaroa) ..	6	22	..	" ..	Screw ..	River limits ..	..	..	..	..	
Tui (Rawene) ..	3	5	..	" ..	" ..	" ..	..	..	..	..	
*Tui (Auckland ..	20	6	..	Compound ..	" ..	" ..	..	..	..	..	
Tuirangi ..	72	22	..	Triple-expansion	" ..	" ..	..	..	..	..	
Tukua	6	28	..	Oil-engine ..	" ..	Home trade ..	1	..	..	..	
Turanga	19	25	..	" ..	" ..	River limits ..	..	..	..	..	
Tutanekai ..	2	8	..	" ..	" ..	" ..	..	..	..	..	
Una	1	3	..	" ..	" ..	" ..	..	..	..	..	
Undine	5	10	..	" ..	" ..	" ..	..	..	..	..	
Uta	23	50	..	" ..	" ..	" ..	..	..	..	..	
Vectus	22	16	..	" ..	" ..	" ..	..	..	..	..	
Ventura ..	3	7	..	" ..	" ..	" ..	..	..	..	..	
Vera (Onehunga)	4	16	..	" ..	" ..	" ..	..	..	..	..	
Vera (Raglan) ..	3	12	..	" ..	" ..	" ..	..	..	..	..	
Vesper (Te Kopuru)	3	16	..	" ..	" ..	" ..	..	..	..	..	
Vesper (Auckland)	5	32	..	" ..	Twin-screw	Home trade ..	1	..	..	..	
*Victory (Auckland)	17	30	..	" ..	"	River limits ..	..	..	..	..	
Victory (Helensv'le)	4	14	..	" ..	Screw ..	" ..	..	..	..	..	
Victory (Hokianga)	4	8	..	" ..	" ..	" ..	..	..	..	..	
Viking	5	14	..	" ..	" ..	" ..	..	..	..	..	
Vindex	16	32	..	" ..	Twin-screw	Home trade ..	1	..	..	..	
Viola	3	15	..	" ..	Screw ..	River limits ..	..	..	..	..	
*Vixen	5	12	..	" ..	" ..	" ..	..	..	..	..	
Wahine	1,798	720	7,938	Turbine ..	Triple-screw	" ..	..	..	..	..	
*Waiapu	57	35	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Waihou	6	40	..	" ..	" ..	" ..	..	..	..	..	
Waihora ..	2,993	410	1,778	Triple-expansion	" ..	Foreign trade	10	6	3	3	
Wai-iti	5	47	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Waikana ..	67	200	..	Compound ..	Twin-screw	" ..	..	..	..	..	
Waikare ..	1	4	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Waikato ..	6	10	..	" ..	" ..	" ..	..	..	..	..	
Waima	6	20	..	" ..	" ..	" ..	..	..	..	..	
Waimarama ..	4	8	..	" ..	" ..	" ..	..	..	..	..	
Waimarie (A'kland)	159	48	..	Compound ..	Twin-screw	" ..	..	..	..	..	
Waimarie (W'gton)	53	20	..	Non-condensing	Paddle ..	" ..	..	..	..	..	
Waimarino ..	2,712	396	1,565	Triple-expansion	Screw ..	Foreign trade	10	6	3	3	
Waimea ..	207	100	496	"	Twin-screw	Home trade ..	4	3	..	..	
Wainui (Picton) ..	2	5	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Wainui (Akaroa) ..	5	10	..	" ..	" ..	" ..	..	..	..	..	
Waioma ..	5	20	..	" ..	" ..	" ..	..	..	..	..	
Waiomo (Raglan)	4	12	..	" ..	" ..	" ..	..	..	..	..	
Waiomo (Russell)	4	10	..	" ..	" ..	" ..	..	..	..	..	
Waione	48	80	..	Compound ..	Twin-screw	" ..	..	..	..	..	
Wai-ora	3	15	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Waiora	..	75	..	" ..	" ..	" ..	..	..	..	..	
Waiotahi ..	167	56	351	Compound ..	Twin-screw	Home trade ..	4	3	..	..	
*Waipa	3	11	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Waipori ..	1,221	180	912	Triple-expansion	" ..	Foreign trade	7	3	2	3	
Waipu	76	50	236	Compound ..	Twin-screw	Home trade ..	2	2	..	..	
Waipuna ..	2	7	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Wairau	59	20	140	Compound ..	" ..	Home trade ..	2	2	..	..	

* Surveyed twice.

RETURN OF STEAMERS AND OIL-ENGINE VESSELS TO WHICH CERTIFICATES OF SURVEY WERE ISSUED, ETC.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Indicated Horse-power of Steam-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Minimum Number of following Classes of Crew Law requires to be carried.				Remarks.
							Able Seamen.	Firemen.	Trimmers.	Greasers.	
Waireka ..	5	45	..	Oil-engine ..	Screw ..	River limits ..	..	..	..	..	
Wairere ..	41	25	..	Non-condensing	Paddle ..	" ..	..	..	..	..	
Wairoa	48	16	78	Compound ..	Screw ..	Home trade ..	2	1	..	..	
Wairua (Auckland)	220	44	..	" ..	Twin-screw	River limits ..	..	..	..	..	
Wairua (Wang'nui)	†20	70	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Waitangi (Dunedin)	32	60	..	Compound ..	" ..	Home trade ..	1	..	..	..	
Waitemata	18	150	..	Oil-engine ..	Twin-screw	River limits ..	..	..	..	..	
Waitohi.. ..	18	10	..	Compound ..	Screw ..	" ..	..	..	..	..	
Waitomo ..	2,719	372	1,604	Triple-expansion	" ..	Foreign trade	10	6	3	3	
Waiuku.. ..	49	200	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
*Waiwera ..	..	6	..	Compound ..	" ..	" ..	..	..	..	..	
Wakapai ..	†20	10	..	" ..	" ..	" ..	..	..	..	..	
Wakatere (A'kland)	176	140	..	" ..	Paddle ..	" ..	..	..	..	..	
Wakatere (Raglan)	4	5	..	Oil-engine ..	Screw ..	" ..	..	..	..	..	
Wakatu ..	95	30	134	Compound ..	" ..	Home trade ..	2	2	..	..	
Wallace ..	60	50	..	Non-condensing	" ..	River limits ..	..	..	..	..	
Wanaka ..	1,572	280	1,235	Triple-expansion	" ..	Foreign trade	8	3	2	3	
Wanderer (A'kland)	23	..	..	Oil-engine ..	" ..	Home trade ..	1	..	..	..	
Wanderer (A'kland)	4	12	..	" ..	" ..	River limits ..	..	..	..	..	
Waterlily ..	29	20	..	" ..	" ..	Home trade ..	1	..	..	..	
Waverley ..	93	25	92	Compound ..	Twin-screw	" ..	2	1	..	..	
Weka	53	20	80	" ..	Screw ..	" ..	2	1	..	..	
Westella ..	3	14	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Westland ..	8	86	362	Compound ..	Paddle ..	Home trade ..	1	3	..	..	
Wetere	41	22	..	" ..	Screw ..	River limits ..	..	..	..	..	
Whakapara ..	6	2	..	" ..	" ..	" ..	..	..	..	..	
Whakarire ..	449	120	642	" ..	Twin-screw	Home trade ..	5	3	..	..	
Whangape ..	1,900	280	1,147	Triple-expansion	Screw ..	Foreign trade	8	3	2	3	
Whanui.. ..	3	5	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Wharepapa ..	5	18	..	" ..	" ..	" ..	..	..	..	..	
Whati	..	6	..	Compound ..	" ..	" ..	..	..	..	..	
W.H.B. ..	3	15	..	Oil-engine ..	" ..	" ..	..	..	..	..	
Will Watch ..	48	45	..	" ..	" ..	Home trade ..	2	..	..	..	
Winnie May ..	3	8	..	" ..	" ..	River limits ..	..	..	..	..	
Wootton ..	90	33	132	Compound ..	" ..	Home trade ..	2	2	..	..	
Worker ..	2	12	..	Oil-engine ..	" ..	River limits ..	..	..	..	..	
Zephyr II ..	3	10	..	" ..	" ..	" ..	..	..	..	..	
Zoe	2	5	..	" ..	" ..	" ..	..	..	..	..	

* Surveyed twice. † Under 20 tons.

NEW ZEALAND
WRECK CHART.

1st APRIL, 1919, to 31st MARCH, 1920.

Compiled from Official Records in the MARINE DEPARTMENT.

SYMBOLS.

STRANDINGS.

X ---------- *Signifies a total loss.*
X ---------- *Signifies a partial loss.*

OTHER CASUALTIES.

\+ ..... *Signifies partial loss of a steam-vessel.*
∓ ..... *Signifies total loss of a steam-vessel.*

NOTE.—Vessels propelled by oil-engines are placed in same category as steam-vessels.

Casualties resulting in slight damage are not shown on this Chart.

THE SEAL OF THE MARINE DEPARTMENT N.Z.

THREE KINGS
North Cape
Cape Maria Van Diemen Light Rev. Vis 24½ M.
AHIPARA BAY
BAY OF ISLANDS
Cape Brett Lt. 30" Vis 30½ M
Herekino R.
Hokianga R.
Moko Hinou Light Fl. 10" Vis 26 M.
GREAT BARRIER
Kaipara H. Light Fl 10" Vis 25 M.
Tiri Tiri Light F Vis 24 M.
Cuvier Is Light Rev. 30" Vis 26 M.
AUCKLAND
Manukau Har. Light F. Vis. 26 M.
See Enlargement
BAY OF PLENTY
TAURANGA
East C Light Fl. 10" Vis 26 M.
Kawhia Har.
Var. 15°15'E.
Mokau R.
NEW PLYMOUTH
Cape Egmont
Light Fixed Vis. 15½ M.
OPUNAKE
GISBORNE
Tuahine Pt Occ 2" Vis 8 M
Poverty Bay
Portland Is Light Rev. 30" Vis 24 M
NAPIER
Cape Kidnappers
Patea R. Light F Vis 10 M. Light F. Vis. 12 M.
WANGANUI
COOK STRAIT
Rangitikei R. Light Vis 5 M.
Manawatu R.
FOXTON
Cape Farewell
Farewell Spit
Light F. Vis 26½ M.
Light Rev 1' Vis 17 M.
Stephens I. Light G.Fl 30" Vis. 32 M.
Cape Turnagain
Rock Pt
Light Fl Vis 8 M.
Karamea R.
Brothers
WELLINGTON
Castle Point
NELSON
Flat Point
BLENHEIM
Cape Palliser Light Rev. 30" D. Fl Vis 22 M.
Cape Campbell Light Rev. Vis 18 M.
Clarence R.
Cape Foulwind
WESTPORT
KAIKOURA
GREYMOUTH
HOKITIKA
Waiau-ua
Abut Head
OKARITO
CHRISTCHURCH
Light F. Vis. 28 M.
LYTTELTON
Godley Hd
Akaroa Har. Light Fl 10" Vis. 23 M
Rakaia R.
Jackson's Bay
TIMARU
Light F. Vis 14½ M.
Light F. Vis. 10 M
Milford Sound
Var. 17°30'E.
OAMARU
Light F. Vis 6 M
Moeraki
Caswell Sound
DUNEDIN
Taiaroa Hd Light F. Red. Vis 20 M.
Cape Saunders
Light R. Vis 20 M.
Jhisky S.
Physegur Pt
Light Occ. Vis 19 M.
INVERCARGILL
Nugget Pt Light F. Vis 22 M.
Centre Is Light F Vis 22½ M.
Dog I.
Waipapapa Pt Light Fl 10" Vis 13½ M
STEWART I.
SNARES

Statute Miles. 0 50 100 150
Nautical Miles. 0 50 100 150

AUCKLAND AND MANUKAU HARBOURS.

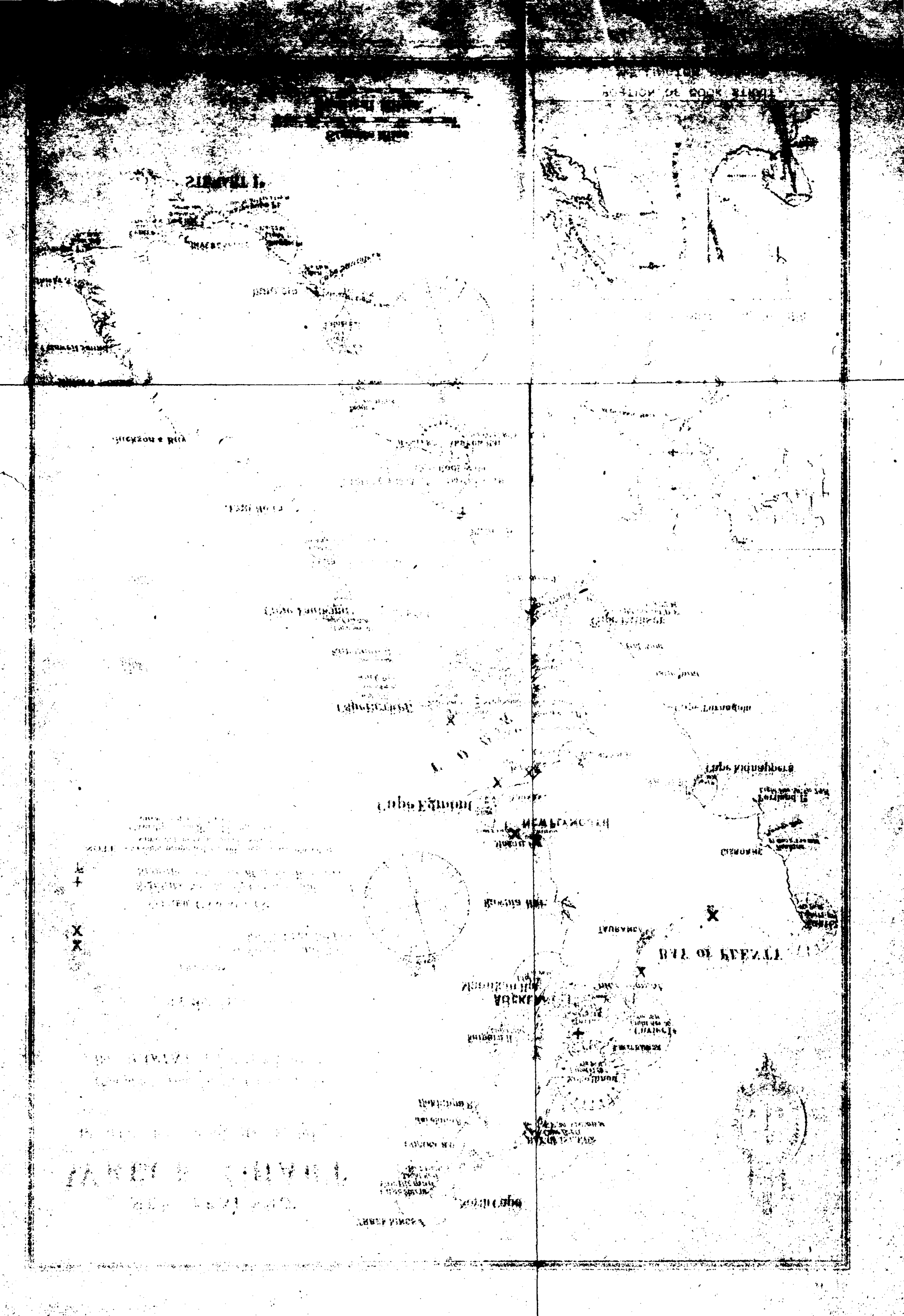
Manukau Harbour

PORTION OF COOK STRAIT AND WELLINGTON HARBOUR.

Brothers
Tory Channel
COOK STRAIT
WELLINGTON
Light

6.20-8/20 582

BY AUTHORITY MARCUS F. MARKS, GOVERNMENT PRINTER, WELLINGTON



RETURN OF SAILING-VESSELS SURVEYED DURING THE FINANCIAL YEAR ENDED 31ST MARCH, 1920, WITH PARTICULARS OF TONNAGE, ETC.

Name of Vessel.	Tons Register.	Class of Certificate.	Minimum Number of Seamen required by Law to be carried.		
			Able Seamen.	Ordinary Seamen.	Apprentices or Boys.
Agnes Martin	41	Home trade	2	..	..
Alert	98	"	2	1	..
Alma	23	"	1	..	..
*Altair	57	"	2	..	..
Cathkit	139	Foreign trade	4	..	1
Combine	24	Home trade	1	..	..
Dandy	82	"	2	1	..
Dartford	1,196	Foreign trade	10	2	3
Devron	26	Home trade	1	..	..
Edna	22	"	1	..	..
Elsie Mary	99	"	2	1	..
Esme	20	"	1	..	..
Ethel Wells	19	"	1	..	..
Gladbrook	999	Foreign trade	9	2	2
Greyhound	83	"	2	1	..
Haere	99	Home trade	2	1	..
Hazel Repton	142	"	4	..	..
Herald	73	"	2	1	..
Huanui	100	"	2	1	..
Huia	20	"	1	..	..
Huon Belle	43	"	2	..	..
Irene	30	"	1	..	..
Jane Gifford	20	"	1	..	..
Kiatia	20	"	1	..	..
Kitty Fraser	25	"	1	..	..
Laura	326	Foreign trade	6	1	1
Lily (Lyttelton)	84	Home trade	2	1	..
Lily (Nelson)	16	"	1	..	..
Maggie	20	"	1	..	..
Manurewa	327	Foreign trade	6	1	..
Moa (Auckland)	99	Home trade	2	1	..
Moa (Napier)	66	"	2	1	..
Ngaru	66	"	2	1	..
Northern Chief	263	Foreign trade	5	1	1
*Onerahi	25	Home trade	1	..	..
Pahiki	20	"	1	..	..
Progress	288	Foreign trade	5	1	..
Ranger	64	Home trade	2	1	..
Rangi	86	"	2	1	..
Raupo	683	Foreign trade	8	1	2
Rewa	7	Home trade	1	..	..
*Rira	105	Foreign trade	2	1	..
Saucy Kate	25	Home trade	1	..	..
Scot	18	"	1	..	..
Seagull	25	"	1	..	..
Senorita	324	Foreign trade	6	1	1
Stanley	90	Home trade	2	1	..
Talisman	70	"	2	1	..
Tararawa	25	"	1	..	..
The Portland	59	"	2	..	..
*Thistle	23	"	1	..	..
Waikonini	23	"	1	..	..
Waiti	17	"	1	..	..
Wanganui	309	Foreign trade	6	1	1
Ysabel	148	"	4	..	..
Zingara	90	Home trade	2	1	..

*Surveyed twice.

Return of Wrecks and Casualties to Shipping reported to the Marine Department from the 1st April, 1918, to the 31st March, 1920.

Date of Casualty.	Vessel's Name, Age, and Class.	Rig.	Register Tonnage.	Number of		Nature of		Number of Lives lost.	Place where Casualty occurred.	Wind.		Finding of Court of Inquiry.	Name of Master
				Crew.	Passengers.	Cargo.	Casualty.			Direction.	Force.		
1918.													
Nov. 17 Dec. 2	Laurel Whalen, aux., 2 years	Schooner	1,049	18	..	General	Breakdown of machinery; damage, £1,870	..	Lat. 9° S., long. 160½° W.	..	Calm ..	The starboard engine broke down on 17th November, and on 2nd December the port engine also broke down and the vessel headed for Auckland, reaching there on 1st January, 1919	H. Docherty.
1919.													
Jan. 11	Awanui, 28 years	Schooner	96	7	..	Copra ..	Stranded; total loss, £1,520	..	Alofi Bay, Niue Island	..	Gale ..	The vessel was at anchor working cargo when the wind suddenly shifted and brought a heavy sea into the bay, causing the cables to part. The vessel then drifted ashore and became a total wreck	R. Anderson.
Feb. 3	Wairoa, s.s., 25 years	Ketch ..	49	8	..	..	Stranded; total loss	..	Tairua Bar ..	..	Calm ..	The vessel struck heavily on the bar, carrying away her stern-post and rudder-trunk, and putting the engines out of action. She then drifted on to the sandspit and became a total wreck. The Court exonerated the master from blame, being of opinion that he acted with reasonable prudence	Edward Sellars.
Feb. 14	Elsie, aux., 16 years	Ketch ..	23	4	..	General	Collision; no damage	..	Off King's Wharf, Auckland	S.W.	Light	The Court found that the collision was due to the default of the master of the "Ellen and Martha" in not showing any lights, and he was ordered to pay £5 towards the cost of the inquiry	E. McGerney. Wm. Reid.
,, 14	Ellen and Martha, o.e.v., 28 years	Cutter ..	4	2	2	..	Collision; damage, £90						
April 10	Fairburn, aux., o.e., 13 years	Schooner	69	5	..	..	Stranded; no damage	..	Breakwater, Gisborne	S.	Moderate	Struck breakwater owing to propeller being fouled by rope	J. Brown.
,, 29	Agnes Martin, 37 years	Ketch ..	41	3	..	Tallow..	Collision; damage, £250	..	Napier Roadstead ..	S.W.	Light ..	The lighter was deeply laden, and in coming alongside the s.s. "Kaikoura" came into collision with that vessel's propellers, which knocked a large hole in the lighter's starboard quarter	W. MacDonald.
May 3	Uta, o.e.v., 19 years	Cutter ..	23	3	..	..	Collision; trifling damage	..	Wellington Harbour ..	N.	Light	The vessels came into collision off end of Queen's Wharf, not observing each other until too late to avoid a slight collision	H. O'Neill.
,, 3	Karaka, s.s., 8 years	Cutter ..	10	3	..	..	Ditto						
,, 10	Queen of the South, s.s., 42 years	Schooner	121	13	..	General	Stranded; total loss	..	Off Cape Campbell ..	..	Calm ..	Vessel stranded on reef off Cape Campbell in hazy weather. The casualty might have been avoided if the master had made an allowance in his course to counteract the effect of the tide, and taken proper observations, which would have shown that the 2 degrees of easterly deviation shown on his compass-adjustment card were non-existent	J. R. Owen.

May 21	Westmoreland, s.s., 2 years	Schooner	6,099	110	..	General	Stranded; considerable damage	..	Bluff Harbour ..	W.S.W	Fresh breeze	When leaving Bluff Harbour the vessel grounded near Channel Rocks and was considerably damaged. The Court was of opinion that the stranding was due to the quartermaster mistaking an order given to the engine-room to "Stop port engine" for an order to "Port helm." The officers of the ship and the pilot were exonerated from any blame for the casualty	W. R. D. Cornwall.
,, 29	Tofua, s.s., 11 years	Schooner	2,634	91	520	Coal ..	Stranded; no damage	..	Otago Harbour ..	S.W.	Strong	Vessel was proceeding to Dunedin too early on the tide and grounded in mid-channel. Trifling accident	H. Williams.
,, 30	Kapuni, s.s., 10 years	Schooner	97	10	..	..	Stranded; trifling damage	..	Patea Bar	E.	Light ..	Grounded on sandspit, slightly damaging stem	A. P. Gibson.
,, 30	Otira, s.s., first trip	Schooner	4,911	79	..	General	Accident to machinery	..	Lat. 14′ 10″ S., long. 109 11″ W., and lat. 17′ 4″ S., long. 114′ 17″ W.	..	..	Air-pump bucket broken and also starboard pump lever rocking-shaft bearing bracket	W. C. Mogg.
June 1	Otira, s.s., first trip	Schooner	4,911	79	..	General	Accident to machinery	..					
,, 9	Kowhai, s.s., 9 years	Schooner	404	25	..	..	Stranded; damage, £2,500	..	Farewell Spit ..	S.W.	Moderate	The Court was of opinion that the course set by the master was a reasonably safe one, and was unable to find from the evidence what caused the vessel to run ashore if the course was followed. The chief officer was left in charge of the vessel at 4.5 a.m., but left the bridge shortly before the stranding, and the Court was of opinion that had he not done so, and had remained on the bridge and kept a good lookout, he would have seen the danger in time to avoid it. The Court exonerated the master from blame, but ordered the chief officer to pay half the costs of the inquiry. The vessel was refloated and brought to Wellington on 14th July	Frank Dinsmore.
,, 19	Isabella de Fraine, aux., 17 years	Ketch ..	76	7	..	General	Damaged gear, £100	..	Between Gisborne and Auckland	..	Various	Met with heavy weather and sustained considerable damage to sails and rigging	S. Hakanson.
July 3													
June 20	Echo, aux., 14 years	Schooner	99	9	..	Tallow..	Stranded; no damage	..	Wairoa River, Hawke's Bay	N.W.	Light ..	Strong current carried vessel out of channel and she grounded inside the bar. Floated off when tide rose	B. M. Carpenter.
,, 24	Waimarino, s.s., 19 years	Schooner	2,712	45	..	General	Crack in cylinder; damage, £150	..	Off Tiritiri, Auckland	..	..	A crack was discovered in port side of high-pressure cylinder, and the vessel returned to Auckland for repairs	J. Thompson.
,, 29	Rakanoa, s.s., 23 years	Schooner	1,393	30	..	Coal ..	Stranded; no damage	..	Otago Harbour ..	..	..	Vessel grounded on side of channel. Trifling accident caused by force of ebb tide. Floated off on rise of tide	W. W. Hender.
July 17	Waverley, s.s., 40 years	Schooner	93	12	..	General	Stranded; damage, £300	..	Patea Bar	S.	Fresh breeze	The vessel met a heavy sea when crossing the bar and was forced towards the eastern wall of the entrance, where she struck some concrete blocks off the breakwater	W. T. Brigden.

RETURN OF WRECKS AND CASUALTIES TO SHIPPING REPORTED TO THE MARINE DEPARTMENT, ETC.—*continued*.

Date of Casualty.	Vessel's Name, Age, and Class.	Rig.	Register Tonnage.	Number of		Nature of		Number of Lives lost.	Place where Casualty occurred.	Wind.		Finding of Court of Inquiry.	Name of Master.
				Crew.	Passengers.	Cargo.	Casualty.			Direction.	Force.		
1919.													
July 28	Laura, 30 years ..	Barquentine	326	11	..	Oil ..	Stranded; slight damage	..	West Ledge, Cook Strait	..	..	The casualty was caused by a sudden gust of wind filling the sails whilst the vessel was being put about to avoid striking the rocks on the port side, and was contributed to by an error of judgment on the part of the master in attempting to make an anchorage inside the harbour in the darkness without having sufficient knowledge of the entrance and lights, and with an inadequate chart. He should have hove to and signalled for a pilot. He was ordered to pay half the costs of the inquiry, £3 14s.	
Aug. 3	Arapawa, s.s., 12 years	Schooner	128	14	..	General	Stranded; damage, £1,200	..	Waitara Bar ..	S.W.	Fresh breeze	The stranding was probably due to the heavy wind and sea on the previous night having silted up the channel, which on the previous day showed sufficient depth of water. The Court found that no one was to blame for the casualty	E. J. Keatley.
,, 5	Kaiaia, aux., 10 years	Ketch ..	24	3	..	Cement	Struck snag; damage, £20	..	Mahurangi River ..	..	..	Struck a snag whilst proceeding down river, and knocked three holes in hull	H. Subritzky.
,, 13	Pateena, s.s., 36 years	Schooner	550	55	130	Mails ..	Struck wharf; damage, £350	..	Manukau Harbour ..	W.S.W.	Strong	When approaching wharf the strong flood tide and wind caused her to touch the ground and cant her into the wharf end, the iron-work on which tore away her starboard bow-plates	T. B. Sewell.
,, 14	Will Watch, aux., 24 years	Ketch ..	48	5	..	Coal ..	Broken shaft; damage, £300	..	Off Kawau Island ..	..	..	The crank shaft and casing broke and caused damage to the machinery. Cause not known	J. Moura.
,, 21	Vixen, aux., 36 years	Ketch ..	5	4	..	Timber	Fire; damage, £10	..	Off Patiki Island ..	..	Calm ..	Slight fire in engine-room caused by leakage from a tin of benzine	F. J. Ramband.
Sept. 6	Haere, 16 years ..	Schooner	99	5	..	General	Damaged rudder	..	Off Hokianga Bar ..	E.	Light ..	The rudder split in two vertically, and was temporarily repaired by crew	M. Himainer.
,, 10	Rothesay Bay, 43 years	Barque	699	..	..	Rails ..	Bumped against wharf; considerable damage	..	King's Wharf, Wellington	S.E.	Strong	Through being bumped against the wharf in the strong wind and heavy sea the vessel sustained considerable damage	F. W. Whitton.
,, 11	Te Atu, aux., 16 years	Cutter ..	28	3	..	General	Stranded; no damage	..	Mohaka River, Hawke's Bay	N.E.	Strong	Strong current in river caused the vessel to take the ground. Floated off on following day	A. Knight.
,, 12	Wairau, s.s., 19 years	Schooner	59	9	..	..	Stranded; damage, £80	..	French Pass ..	S.E.	Light ..	The Court found that the casualty was caused by the wrongful default of the mate in failing to keep the vessel in the red sector of the French Pass light and on the course laid down by the master. The Court was further of opinion that the master should in the circumstances have remained on the bridge until the vessel had cleared the Piege Rocks. The master and mate were ordered to pay the cost of the inquiry, £7 17s.	J. Knox.

Sept.	16	Tainui, s.s., 16 years	Ketch ..	59	9	..	Benzine	Fire; total loss ..	8	Near Shag Rock, Gore Bay	..	Light ..	The vessel left Lyttelton for Wanganui with a cargo of 1,808 cases of benzine which were in a leaky condition, and when off Gore Bay an explosion took place setting fire to the vessel, and the crew were forced to take to the boats, which were unfortunately capsized in the heavy sea and, with exception of one, all were drowned. The Court found—(*a*) That the regulations regarding shipment and carriage at sea of petroleum were not complied with; (*b*) that due care was not exercised in the stowage of the petroleum on the said ship; (*c*) that the said ship was not safe and suitable for the reception and conveyance of petroleum; (*d*) that the tins and cases containing the petroleum were leaking to such an extent as to render it unsafe for the ship to put to sea; (*e*) that all the life-saving appliances, with the exception of the lifeboat, were efficient and available. The lifeboat was available, but was too light in construction and had insufficient floor-space	J. C. Cowan.
,,	18	Flora, s.s., 37 years	Schooner	818	37	..	General	Machinery defect; trifling	..	Hauraki Gulf ..	W.	Light ..	Feed-valve chest was found to be leaking, and vessel put back to Auckland for repairs	E. Vellenoweth.
,,	23	Young Bungaree, s.s., 36 years	Schooner	2	4	..	..	Struck breastwork; damage, £20	..	Auckland Harbour ..	..	..	While berthing at the Ferry Wharf the tug struck a pile and the breastwork, the bottom of her stem being broken. The master steamed her to Freeman's Bay and beached her. She was here patched up and towed to the Harbour Board slip for repairs. The accident was due to the engineer mistaking an order, and going ahead instead of astern	
Oct.	7	Echo, aux., 14 years	Schooner	99	9	15	Frozen meat	Stranded; slight damage	..	Bar, Wairoa River ..	E.	Light ..	When crossing the bar several heavy seas came on board and caused the vessel to drift on to the beach	B. M. Carpenter.
,,	12	Mako, s.s., 5 years	Schooner	247	..	..	General	Loss of life ..	1	Hicks Bay	..	..	A passenger named E. Yorke was missed whilst the vessel was at anchor in Hicks Bay, and is supposed to have been lost overboard.	S. Jones.
,,	14	Kanieri, s.s., 34 years	Schooner	115	15	..	General	Collision; no damage	..	Whangarei River ..	..	..	The launch, which was showing no lights, attempted to cross the steamer's bows and was cut to the water's edge abaft the port beam	A. Johnson.
,,	14	Tui, oil-launch ..	Cutter ..	2	4	..	..	Collision; damage, £60						F. Franich.
,,	20	Westmoreland, s.s., 2 years	Schooner	6,099	110	..	..	Stranded; no damage	..	Sand-bank, Otago Harbour	S.W.	Strong & squally	Vessel grounded owing to heavy squall striking her when she had no way on and was in ballast	W. R. D. Cornwall.
,,	23	Kahu, s.s., 33 years	Schooner	96	13	14	General	Sprung a leak; trifling damage	..	At sea, near Chathams	S.W.	Gale ..	Vessel met with heavy gale which shifted the surf-boat and jambed the steering-gear, and she broached to, shipping heavy seas. She took a big list to starboard, and the water came into the engine-room and extinguished the fires. Constant baling by crew and passengers kept the ship afloat, and, the weather having moderated, she was got under weigh and beached at Whangaroa, where the leak was located and repaired. The vessel was refloated and proceeded on her voyage to Waitangi, Chatham Islands	J. Lowry.

RETURN OF WRECKS AND CASUALTIES TO SHIPPING REPORTED TO THE MARINE DEPARTMENT, ETC.—*continued.*

Date of Casualty.	Vessel's Name, Age, and Class.	Rig.	Register Tonnage.	Number of		Nature of		Number of Lives lost.	Place where Casualty occurred.	Wind.		Finding of Court of Inquiry.	Name of Master.
				Crew.	Passengers.	Cargo.	Casualty.			Direction.	Force.		
1919.													
Oct. 30	City of Winchester, s.s., 2 years	Schooner	5,164	84	..	Frozen meat	Fire; no damage	..	38° 49′ S., 170° 22′ E.	S.S.E.	Strong..	Fire was discovered in insulation of after part of No. 2 hold, caused by coal heating in No. 3 hold	E. G. Hoffins.
Nov. 1	Lomen, s.s., 13 years	Cutter ..	15	3	..	General	Collision; damage, £10	..	Mangawhare Wharf, Kaipara	N.W.	Strong	The "Lomen" was moored at the wharf when the "Pioneer" attempted to moor at same place, causing a slight collision	A. H. Chadwick.
,, 1	Pioneer, s.s., 9 years	Cutter ..	25	3	30	General	No damage ..						C. R. Vause.
,, 10	Marakopa, o.e.v., 5 years	Cutter ..	5	3	..	..	Stranded; total loss	..	3 miles south of Mokau River	N.W.	Fresh breeze	When entering Mokau River the engine failed, and vessel struck a reef and drifted to sea. She was beached at Mohakatino and became a total wreck	M. Jensen.
,, 11	Abemana, 2 years	Schooner	337	9	..	Timber	Fire; no damage	..	Auckland Harbour ..	S.W.	Gale ..	Fire was discovered in the storeroom. Cause not known	A. Pry.
,, 16	Orepuki, s.s., 11 years	Schooner	225	17	..	Timber	Accident to machinery; slight damage	..	3 miles south of Wellington Heads	S.E.	Moderate	Tumbling-block of M.P. engine carried away	F. Dewhurst.
,, 19	Westmoreland, s.s., 2 years	Schooner	6,099	108	..	..	Fire; slight damage	..	No. 3 Wharf, Timaru	N.E.	Light ..	Fire was discovered amongst tow cargo. Cause not known	W. C. D. Cornwall.
,, 18	Karori, s.s., 17 years	Schooner	1,194	30	..	Coal ..	Stranded; considerable damage	..	Otago Harbour ..	N.W.	Moderate	While navigating the passage between Quarantine and Goat Islands the vessel was caught in a tide-rip and struck a ledge of rock on Quarantine Island. The Court found that the casualty was not caused by the default of the master or any of the officers or crew	G. H. Hopkins.
,, 19	Kaitangata, s.s., 12 years	Schooner	1,219	30	..	General	Burst steam-pipe; damage, £10	..	Off Cape Runaway ..	..	..	Auxiliary steam-pipe burst	J. E. Page.
,, 26	Kapuni, s.s., 10 years	Schooner	97	10	..	Cheese	Stranded; damage, £25	..	Bar, Patea River ..	W.	Fresh breeze	The vessel touched bottom when crossing the bar, and struck the breakwater	A. P. Gibson.
Dec. 1	Karamu, s.s., 7 years	Schooner	453	26	..	Coal and timber	Stranded: no damage	..	Greymouth Bar ..	..	Calm ..	Vessel touched bottom when crossing the bar outward bound	A. A. McLellan.
,, 8	Katoa, s.s., 7 years	Schooner	1,382	34	..	..	Damaged plates, £140	..	Central Wharf, Auckland	..	..	The Harbour Board's floating crane bumped into the Katoa's starboard side	J. Ryan.
,, 19	Lily, 46 years ..	Schooner	84	5	..	Timber	Stranded; slight damage	..	Westhaven, West Coast, N.Z.	W.	Light ..	Vessel ran on sand-bank when attempting to clear harbour and sustained slight damage. Towed off on 22nd January, 1920	J. Sandvic.
1920.													
Jan. 7 (about)	Janet, 44 years ..	Cutter ..	24	5	5	Copra ..	Missing: supposed total loss	10	Off Keppel Island, South Pacific	N.E.	Gale ..	The vessel left Keppel Island on 3rd January, 1919, and was seen off the island four days later, when a heavy gale was blowing with thick weather. Wreckage was found at Haapai and identified as part of the "Janet"	W. Mann.
Jan. 14	Te Anau, s.s., 41 years	Schooner	957	32	..	General	Fire; no damage	..	No. 3 Wharf, Lyttelton	S.W.	Fresh breeze	Fire was discovered in No. 4 hold, but was extinguished before damage was done to ship. Probably caused by rats gnawing matches	N. Platts.

Jan.	16	Jane Gifford, 12 years	Ketch ..	20	3	..	Shingle	Leaking; damage, £20	..	Wharf, Warkworth, Auckland	..	..	While lying alongside wharf with a load of shingle the falling tide caused vessel to rest on some large boulders washed down by the river, and several planks were started, causing the vessel to leak	R. E. Collins.
„	18	Gael, s.s., 16 years	Cutter ..	55	10	..	General	Fire; damage, £15	..	Auckland Harbour ..	..	Calm ..	Flax and tow cargo was discovered to be on fire in after end of hold. Cause not known. Damage to cargo, £200	B. Burk.
„	21	Echo, o.e.v., 14 years	Schooner	99	9	..	General	Fire; trifling damage	..	Between Napier and Wairoa	..	Light ..	Fire caused through heating and sparks from exhaust-pipe	B. M. Carpenter.
Feb.	7	Pateena, s.s., 37 years	Schooner	550	55	..	General	Stranded; no damage	..	Entrance to Nelson Harbour	..	Calm ..	Whilst waiting for tide vessel grounded on mud-bank, floating off when tide rose	H. W. P. Bold.
„	13	Ruapehu, s.s., 19 years	Schooner	5,746	127	..	General	Fire; trifling damage to cargo only	..	No. 7 Wharf, Lyttelton	N.E.	Light ..	Fire was discovered in packing of tiles against forward bulkhead, but was speedily extinquished. Cause unknown	A. W. McKellar.
„	19	Baden Powell, s.s., 20 years	Schooner	72	9	..	General	Stranded; considerable damage	..	Off Opunake ..	N.W.	Light ..	The vessel struck on an unknown rock or bank off the coast of Taranaki. The Court found that the course laid down and steered was a safe one, and exonerated the master, officers, and crew from any blame in the matter	H. P. Sjolander.
„	19	Ngatiawa, s.s., 24 years	Schooner	220	24	34	General	Stranded; damage, £1,500	..	Bar, Opotiki River ..	..	..	Whilst crossing the bar the vessel struck and became unmanageable, and was driven on the Western Spit	C. Hopkins.
„	22	The Portland, 10 years	Schooner	59	4	..	..	Collision; no damage	..	Rangitoto Channel, Auckland	..	..	The "Wairiki" apparently attempted to cross the bows of the "Portland," and the collision resulted	A. Nelson.
„	22	Wairiki ..	Yacht ..	..	..	..	..	Collision; damage, £50						A. R. Hunt.
Mar.	3	Aorere, s.s., 34 years	Ketch ..	37	9	..	Coal ..	Stranded; no damage	..	Farewell Spit ..	W.	Fresh breeze	Vessel grounded on Farewell Spit through error of judgment by master	C. Stephens.
„	6	Admiral Codrington, s.s., 2 years	Schooner	4,148	46	..	..	Fire; no damage	..	Auckland	..	..	Fire occurred in bunker-coal. Supposed spontaneous combustion	R. R. Forbes.
„	14	Kennedy, s.s., 55 years	Schooner	131	12	..	Cement	Stranded; no damage	..	Foxton Bar ..	..	Light ..	Vessel grounded on bar when entering Foxton River; floated off with rising tide	J. R. Owen.
„	24	Katie S, aux. o.e.v., 12 years	Ketch ..	6	3	..	Timber	Dismasted; damage, £100	..	Paeroa River ..	S.	..	Mast carried away whilst loading spars ..	A. G. Nordlinger.
„	26	Armagh, s.s., 2 years	Schooner	7,878	107	..	Produce	Fire; no damage	..	Wellington ..	..	..	Coal in after bunker became heated and was removed.	S. Vint.
„	28	Rosamond, s.s., 35 years	Schooner	462	22	..	General	Stranded; no damage	..	French Pass ..	S.E.	Fresh breeze	When coming through the French Pass the vessel took a sheer against her helm and grounded on a sandy beach. Floated off on rising tide	C. C. Bullock.

Summary of Casualties to Shipping reported to the Marine Department during the Financial Year ended 31st March, 1920.

Nature of Casualty.	Casualties on or near the Coasts of the Dominion.									Casualties outside the Dominion.									Total Number of Casualties reported.		
	Steamers.			Sailing-vessels.			Total within Dominion.			Steamers.			Sailing-vessels.			Total outside Dominion.					
	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.
Strandings—																					
Total wrecks	3	175	..	..	..	..	3	175	..	..	..	..	..	..	..	..	..	..	3	175	..
Partial loss	7	8,210	..	..	..	..	7	8,210	..	..	..	..	..	..	..	..	..	..	7	8,210	..
Slight damage	5	678	..	1	84	..	6	762	..	1	96	..	..	..	..	1	96	..	7	858	..
No damage	11	11,955	..	..	..	..	11	11,955	..	..	..	..	..	..	..	..	..	..	11	11,955	..
Total strandings	26	21,018	..	1	84	..	27	21,102	..	1	96	..	..	..	..	1	96	..	28	21,198	..
Missing—																					
Total loss	..	..	..	..	..	..	..	..	..	..	..	..	1	24	10	1	24	10	1	24	10
Collisions—																					
Partial loss	2	43	..	1	..	..	3	43	..	..	..	..	..	..	..	..	..	..	3	43	..
Slight damage	3	37	..	..	..	..	3	37	..	..	..	..	..	..	..	..	..	..	3	37	..
No damage	5	515	..	1	59	..	6	574	..	..	..	..	..	..	..	..	..	..	6	574	..
Total collisions	10	595	..	2	59	..	12	654	..	..	..	..	..	..	..	..	..	..	12	654	..
Fires—																					
Total loss	1	59	8	..	..	..	1	59	8	..	..	..	..	..	..	..	..	..	1	59	8
Slight damage	4	6,258	..	..	..	..	4	6,258	..	..	..	..	..	..	..	..	..	..	4	6,258	..
No damage	4	18,729	..	..	..	..	4	18,729	..	1	5,164	..	..	..	..	1	5,164	..	5	23,893	..
Total fires	9	25,046	8	..	..	..	9	25,046	8	1	5,164	..	..	..	..	1	5,164	..	10	30,210	..
Miscellaneous, including damage by heavy seas to hull and cargo, loss of masts, sails, &c., and breakdown of machinery	12	7,158	..	3	818	..	15	7,976	..	2	5,960	..	..	..	..	2	5,960	..	17	13,936	..
Total number of casualties to shipping reported	57	53,817	8	6	961	..	63	54,778	8	4	11,220	..	1	24	10	5	11,244	10	68	66,022	18
Loss of life only	1	247	1	..	..	..	1	247	1	..	..	..	..	..	..	..	..	..	1	247	1
Total number of casualties reported	58	54,064	9	6	961	..	64	55,025	9	4	11,220	..	1	24	10	5	11,244	10	69	66,269	19

RETURN SHOWING THE NUMBER OF LAND BOILERS AND MACHINERY INSPECTED DURING THE FINANCIAL YEAR ENDED 31ST MARCH, 1920.

Boilers.

Class.	Not exceeding 5 Horse-power.	Exceeding 5 but not exceeding 10 Horse-power.	Exceeding 10 Horse-power.	Total.
Stationary	2,109	1,398	2,074	5,581
Portable	186	1,070	436	1,692
Totals	2,295	2,468	2,510	7,273

Machinery.

Class.	Number.
Hydraulic lifts	295
Gas-lifts	11
Oil-lifts	1
Electric lifts	659
Steam-lifts	23
Gas, hydraulic, and electric-motor hoists	707
Water-engines, water and electric motors, and water-wheels	5,288
Peltons	213
Turbines	117
Gas-engines	1,439
Oil-engines	9,743
Steam machinery	55
Total	18,551

RETURN SHOWING THE NUMBER OF SERVICE AND COMPETENCY CERTIFICATES ISSUED TO STATIONARY, WINDING, LOCOMOTIVE AND TRACTION, AND TRACTION-ENGINE DRIVERS, AND TO ELECTRIC-TRAM DRIVERS DURING THE FINANCIAL YEAR ENDED 31ST MARCH, 1920.

Class.	Number.
Steam stationary—	
Service—First class	7
Competency—	
Extra first-class engineer	3
First class	52
Second class	219
Steam winding, competency	8
Electric winding, competency	1
Locomotive and traction, competency	127
Locomotive, competency	5
Traction, competency	87
Electric tram, competency	101
Total	610

RETURN OF ENGINEERS TO WHOM EXTRA FIRST-CLASS CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1919.			1919.	
Cain, Charles Edward	Dec. 2	106	Schröeder, William Louis	Aug. 28	104
Herepath, Basil Arthur Conrad ..	„	105			

RETURN OF FIRST-CLASS STATIONARY-ENGINE DRIVERS TO WHOM CERTIFICATES OF SERVICE HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1920.			1919.	
Hufton, George	Mar. 2	1778	Smith, Carl Adolphus	Aug. 28	1772
	1919.			1920.	
Huston, Joseph Suffield	Dec. 2	1775	White, Surtees John	Mar. 2	1777
Jensen, Hubert John	Aug. 28	1773	Wood, Harry	„	1776
Lawfield, Frank	„	1774			

Return of First-class Stationary-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1919, to the 31st March, 1920.

Name of Person.	Date of Issue.	No.
	1919.	
Addison, William Arthur	Dec. 2	1943
Autheman, Reginald	,,	1951
Ballantyne, Walter Hector	,,	1954
Brown, Archibald David	Aug. 28	1919
Carruthers, Alexander Denton	Dec. 2	1947
Cullum, John	May 26	1909
Delahunty, William John	Aug. 28	1923
	1920.	
Drummond, Arthur	Mar. 2	1959
	1919.	
Eberhardt, Louis William	Aug. 28	1924
Evans, William Wynn	May 5	1908
Fergusson, Edward David Baxter	Aug. 28	1928
Flintoff, Walter Rutherford	May 26	1912
Gill, Harry	,,	1911
Hall, Reginald George	Aug. 28	1935
Harrison, Ernest Edward	Dec. 2	1944
Hayward, Arthur John	,,	1937
Hendry, George	,,	1948
Hunter, Leslie John	May 26	1914
	1920.	
Jamieson, Alexander James	Mar. 2	1957
	1919.	
Johnston, William Henry	May 26	1916
Jones, Arthur Evan	Dec. 2	1949
Jorgensen, Hans Rudolph	Aug. 28	1925
Lang, Henry Gordon	,,	1933
Looney, John Robert	May 26	1913
Lyon, Gordon	,,	1918
MacBeath, Robert	Dec. 2	1953
McGuinness, Edward	Aug. 28	1922
McIntyre, John Miller	1920. Mar. 2	1956
	1919.	
McKenzie, Roderick William Moore	Dec. 2	1937
McLaren, Alexander	May 26	1910
McTaggart, William	Dec. 2	1941
Mangan, William	Aug. 28	1934
Manners, John Hedley	Dec. 2	1939
Maud, Henry	Aug. 28	1926
	1920.	
Michie, Archibald Douglas	Mar. 2	1958
	1919.	
Mills, Harry	May 26	1915
Mitchell, James	Aug. 28	1936
Morgan, Reginald	May 5	1907
Mudie, James	Dec. 2	1950
Petersen, Frederick William	,,	1938
Secombe, William Frederick	Aug. 28	1920
Sharman, George Edward	,,	1927
Shepherd, Alfred Hullen	May 5	1906
Sloan, Frank Cockburn	Aug. 28	1930
Small, John	May 26	1917
Smith, Thomas Martin	Dec. 2	1952
	1920.	
Smyrk, Edward William	Mar. 2	1955
	1919.	
Thomas, Percy Edmund	Aug. 28	1929
Trickett, John Ronksley	,,	1921
Warne, George	Dec. 2	1945
Wearn, Alfred	Aug. 28	1932
Wylde, Robert James	Dec. 2	1943

Return of Second-class Stationary-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1919, to the 31st March, 1920.

Name of Person.	Date of Issue.	No.
	1919.	
Adamson, Clifford Lancelot	Dec. 2	5072
Addison, William Arthur	Aug. 28	5011
Agnew, Samuel Gordon	May 5	4906
Aitchison, Adam	Dec. 2	5047
Allan, Arthur Percival	May 26	4924
	1920.	
Anderson, Hugh	Mar. 2	5086
	1919.	
Anderson, Thomas	Aug. 28	5005
Anstiss, Cecil Henry	,,	5026
	1920.	
Armstrong, Richard	Mar. 2	5102
	1919.	
Armstrong, Sidney John	Aug. 28	4986
Baird, Thomas Victor Newton	May 26	4932
Barnett, Howard	Dec. 2	5042
Bate, Adam	,,	5046
Bisset, Ernest	Aug. 28	5009
	1920.	
Bisset, Norman Alexander	Mar. 2	5098
	1919.	
Blackblock, Robert Henry	May 26	4963
Booth, Herbert Heywood	Aug. 28	5021
Bradburn, Edwin Leonard	May 5	4917
	1920.	
Bradley, Lionel Alexander	Mar. 2	5081
	1919.	
Bradley, Wesley	Aug. 28	5027
	1920.	
Brennan, Daniel Michael	Mar. 2	5119
Brown, Henry Joseph	,,	5103
	1919.	
Buckton, Stanley Rowland	Aug. 28	5028
Buick, James Suttie	Dec. 2	5058
Burnard, Joseph Reuben	,,	5064
Busing, Reginald Walter	Aug. 28	4985
	1920.	
Carmichael, Hugh	Mar. 2	5099
Carter, Harry James	1919. May 26	4962
Cartman, Charles John	May 5	4907
Chesterman, Arthur	Aug. 28	4975
	1920.	
Chittock, Charles Henry	Mar. 2	5097
	1919.	
Clemm, Charles	Dec. 2	5041
Closs, David	May 5	4918
Coates, Frederick James	May 26	4928
Conwell, Thomas	Aug. 28	4997
Crosby, William	,,	4980
	1920.	
Crumpton, Henry Thompson	Mar. 2	5170
	1919.	
Cullen, William Henry Rowe Brown	May 26	4948
Culpit, Allan	Dec. 2	5075
Day, Richard William John	May 26	4933
Devine, Percy	May 5	4912
Donaldson, Allan	,,	4925
	1920.	
Douglas, Robert Pringle	Mar. 2	5100
	1919.	
Drake, William	May 26	4949
Dreckman, Alfred Edward	,,	4939
Farmer, Charles William Sims	Aug. 28	5023
Farquhar, Thomas Collingwood	Dec. 2	5052
Fleming, Arthur	Aug. 28	5000
Fowler, George Philip Goulding	,,	5001
Fowles, Frederick Hastings	,,	5034
Fraser, Alexander	May 26	4964
Fulton, Eric Andrew	Aug. 28	5030
Fussell, Joseph Henry	Dec. 2	5036
Gash, Walter	May 26	4957
Gate, Aaron Hope	,,	4943
George, Arthur	May 5	4916
Gibbins, Barclay	,,	4922
Glennie, John Walter	Dec. 2	5048

RETURN OF SECOND-CLASS STATIONARY-ENGINE DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920—*continued.*

Name of Person.	Date of Issue.	No.
	1920.	
Goble, Robert Henry	Mar. 2	5087
Govan, Joseph Alexander	,,	5114
	1919.	
Grace, Ian Walter	May 5	4903
Graham, Frederick William	May 26	4929
Guthrie, Allan	Aug. 28	5010
	1920.	
Gwyer, William Thomas	Mar. 2	5116
Hamblyn, Alfred Edward	,,	5090
	1919.	
Hamilton, John	May 5	4910
Harper, William	Dec. 2	5066
Harris, Thomas	Aug. 28	4996
	1920.	
Harris, William	Mar. 2	5093
Harris, William Baynard	,,	5088
Hart, Ivan	,,	5117
	1919.	
Hartwell, Eric James	May 26	4931
	1920.	
Hatley, Harold Murdoch	Mar. 2	5118
Heath, George Thomas	,,	5112
Heighton, Nathaniel	,,	5084
	1919.	
Hellier, Herbert	May 5	4921
Henderson, James Hall	Aug. 28	4977
Hibberd, Walter Joseph	,,	5035
	1920.	
Hoare, James Harden	Mar. 2	5094
	1919.	
Hodgetts, Robert Charles	Dec. 2	5049
Horrocks, Charles McIntosh	May 26	4934
Hotham, John William	Dec. 2	5068
Houlker, Thomas	May 5	4915
	1920.	
Hyam, George Neville	Mar. 2	5080
Hyde, William John	,,	5095
	1919.	
Irwin, Charles Cedric	Dec. 2	5076
Jack, George	Aug. 28	4973
James, Clement Vant Bamforth	,,	4981
	1920.	
Jensen, Hjalmar Einar	Mar. 2	5091
	1919.	
Jensen, Peter	Aug. 28	4966
Jensen, Robert	,,	4995
Johnston, William John Waugh	,,	4978
Jukes, Charles	,,	4998
Kennedy, James	May 26	4927
	1920.	
King, Alban William	Mar. 2	5115
	1919.	
King, David Thomas	Aug. 28	5037
	1920.	
Kirkby, John	Mar. 2	5104
	1919.	
Kirkness, William Garson	Aug. 28	5004
Knight, William Charles	Dec. 2	5055
Knight, William Robert	Aug. 28	5029
	1920.	
Knowles, William Ernest	Mar. 2	5082
	1919.	
Lang, Henry Gordon	May 26	4944
Landmann, Karl Herbert	Aug. 28	5018
Langford, Howard	May 26	4946
	1920.	
Latto, William Herbert	Mar. 2	5078
Leigh, Albert Job	,,	5096
Le Poou, Victor Eugene	,,	5089
	1919.	
Levinge, Alfred John	Aug. 28	5006
Lewis, Herbert Leslie	Dec. 2	5074
Lewis, William	,,	5044
Macdonald, John Murray	May 26	4951
McDougall, Andrew	,,	4936
McEwan, James	,,	4942
	1920.	
McFarlane, Andrew John Hugh	Mar. 2	5079
	1919.	
McFarlane, Robert	Aug. 28	4991
McGregor, James	Dec. 2	5059
MacGregor, John	Mar. 2	5085
	1919.	
McGuire, Thomas	Aug. 28	5007
MacInnes, William Alexander	,,	5008
Mackay, George William	,,	4984
McLennan, John Alexander	Dec. 2	5039
McMann, John	Aug. 28	4974
	1920.	
MacSkimming, William James Rankin	Mar. 2	5105
	1919.	
McVay, Harry Douglas	May 26	4930
	1920.	
Magee, Darce Joseph	Mar. 2	5108
	1919.	
Mann, John	Dec. 2	5063
Martin, Arthur Gordon	May 26	4950
Martin, John	Aug. 28	4993
	1920.	
Meneer, Alfred Chickley	Mar. 2	5109
	1919.	
Middleton, James Salisbury	Aug. 28	4999
Morrison, George Thomas	,,	5012
Morton, Thomas William	May 26	4926
	1920.	
Murray, William	Mar. 2	5106
	1919.	
Nicholson, Charles Reginald	Aug. 28	5020
Norton, Arthur Ernest	,,	5002
Oates, George	Dec. 2	5056
O'Callaghan, Charles	Aug. 28	4994
Palmer, Arthur Henry	May 5	4904
Palmer, Edward Noel	Aug. 28	4988
Parker, Ronald Charles Victor	Dec. 2	5077
Parsons, Bernard Samuel	Aug. 28	5031
Payne, Thomas Joseph	May 26	4961
	1920.	
Pearce, James	Mar. 2	5101
	1919.	
Pearson, Leonard	Aug. 28	5019
Pentecost, William Edward	May 26	4945
Perry, George Stanley	May 5	4905
Petersen, Jens Peter	Aug. 28	5032
Plowright, Edward Manning	May 5	4923
Poad, William Henry	,,	4909
Polson, Harold Charles	Aug. 28	4990
Poulgrain, Reginald Watson	May 5	4911
Purcell, Charles	May 26	4952
Queripel, John	Aug. 28	4969
	1920.	
Rasmussen, George Anthony	Mar. 2	5092
	1919.	
Reardon, Thomas Joseph Anthony	May 26	4940
Redshaw, John	Dec. 2	5067
Reeves, Frank Charles	May 26	4953
Reinke, Ernest Herbert	Dec. 2	5051
	1920.	
Revill, Samuel	Mar. 2	5121
	1919.	
Richards, Hercules Ernest Arthur	Aug. 28	4983
	1920.	
Roberts, Ernest James	Mar. 2	5110
	1919.	
Robson, Frederick	Aug. 28	5016
Rodley, Albert Stanton	May 26	4955
Rogers, John Benjamin	May 5	4908
Rogers, Leo	May 26	4937
Rolston, Charles Ernest	Aug. 28	4971
Rubie, Edgar Samuel	Dec. 2	5053
	1920.	
Sanders, Victor John	Mar. 2	5120
	1919.	
Schofield, Oliver Cromwell	Dec. 2	5060
Schwieters, Harold Henry	Aug. 28	4987
	1920.	
Scott, Thomas Keith	Mar. 2	5113
	1919.	
Sheed, Gordon Alexander	Dec. 2	5050
Sherwood, Leslie Walter	May 26	4956
Simons, Arthur Francis	Dec. 2	5054
Simpson, James Ryan	May 5	4919
Skudder, Ernest Alfred	Dec. 2	5073

RETURN OF SECOND-CLASS STATIONARY-ENGINE DRIVERS TO WHOM CERTIFICATE OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920—*continued.*

Name of Person.	Date of Issue.	No.
	1919.	
Smart, Ernest Frederick	May 26	4954
Smith, Clarence Martindale	Aug. 28	4967
Smith, Percy Henry	,,	5024
Smyrk, Edward William	,,	4992
Stancliffe, Thomas	May 26	4941
Stark, James	Aug. 28	5040
Steele, John Alexander	May 26	4935
Stenhouse, John	Dec. 2	5057
Stewart, Colin	May 26	4958
Stewart, Frederick Vesey Montgomery Moore	Aug. 28	4979
Stewart, James Edward	,,	5013
Stichbury, Tom Daniel	Dec. 2	5065
Strangman, Downie	Aug. 28	4989
Tamariki te Maru	Dec. 2	5069
Tanfield, Victor Thomas	Aug. 28	5014
Terry, Lawrence William	,,	5003
Thom, Archibald	,,	5017
Thomas, Allan Roland	May 26	4960
	1920.	
Thomas, Ernest Edward	Mar. 2	5083
	1919.	
Thrush, John	Aug. 28	4968
Todd, Herbert	,,	5022
Toohey, Thomas Henry	Aug. 28	4982
Tripney, John	Dec. 2	5045
Turton, John Dean	,,	5061
Vinson, Duncan Kenneth	May 26	4947
Walch, Albert	Aug. 28	4965
Warne, George	,,	5015
Waters, James	Dec. 2	5043
	1920.	
Webb, Thomas Henry	Mar. 2	5111
	1919.	
Wiggins, Charles Henry	Dec. 2	5071
Williams, George Rogers	Aug. 28	4976
Williamson, Michael	May 26	4959
Willy, Gilbert John	May 5	4920
Wilson, John Arthur	Aug. 28	4972
Wintour, Levi Alfred	May 26	4938
Witeri Raureti	May 5	4914
Wood, Francis George	Aug. 28	5038
Woods, George	,,	5033
Woods, Samuel James	Dec. 2	5070
Worsley, Charles Elliott Emery	May 5	4913
Wright, William Alfred Morris	Aug. 28	5025
Wylie, James Anderson	Dec. 2	5062
Young, Daniel	Aug. 28	4970

RETURN OF LOCOMOTIVE- AND TRACTION-ENGINE DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person.	Date of Issue.	No.
	1919.	
Abrahams, Henry Leopold	Aug. 28	3600
Baddily, James William	Dec. 2	3659
Baird, David	,,	3644
Bak, Jacob Andersen	Aug. 28	3605
Barron, Tom Douglas	May 5	3579
Bartlett, George Henry	Dec. 2	3648
Becker, James	Aug. 28	3622
Betts, Frederick James	May 5	3574
	1920.	
Bingham, Frederick James	Mar. 2	3689
	1919.	
Bowman, Thomas	May 26	3594
Boyd, Robert James	Dec. 2	3646
	1920.	
Burnip, Ebenezer Sinclair	Mar. 2	3685
	1919.	
Cameron, Reginald Lloyd	Aug. 28	3604
Carran, John Victor	,,	3614
	1920.	
Chisholm, Lachlan	Mar. 2	3686
	1919.	
Collinson, George Richard	Aug. 28	3626
Craig, Gatland Perry	May 26	3587
Craighead, David Bruce	Aug. 28	3617
	1920.	
Croker, Henry Milford	Mar. 2	3692
	1919.	
Culley, Frederick James	Aug. 28	3635
Cumming, John	Dec. 2	3661
Currie, James Hunt	May 26	3583
	1920.	
Dale, Alexander Kirk	Mar. 2	3670
Dalziel, Peter Spillane	,,	3684
	1919.	
Davis, Maurice Vernon	Aug. 28	3623
Dell, Percy	,,	3616
	1920.	
Doran, William James	Mar. 2	3687
	1919.	
Eaton, James	May 26	3593
Eisenhut, John Jacob	Dec. 2	3660
Elliott, John Gillow	May 26	3589
Ellis, Edward	May 5	3575
	1920.	
Ellis, Thomas Henry	Mar. 2	3674
Elmes, Arthury Henry	May 5	3572
Evans, Arthur John	Aug. 28	3618
Finlayson, Donald	,,	3619
	1920.	
Fisher, David	Mar. 2	3693
	1919.	
Freshney, John Benjamin	Aug. 28	3632
Gaffey, John Christopher	,,	3629
Gibbs, Arthur Roland	Dec. 2	3653
	1920.	
Gilchrist, James Scott	Mar. 2	3688
	1919.	
Gladwin, Walter Frederick	Aug. 28	3636
Green, Thomas Hillier	Dec. 2	3655
	1920.	
Guy, John McDonald	Mar. 2	3681
	1919.	
Gyde, Arthur John	May 5	3576
	1920.	
Hamilton, Colin Roy	Mar. 2	3672
	1919.	
Handisides, Thomas William	May 5	3580
	1920.	
Hanley, Ernest John William	Mar. 2	3691
	1919.	
Hardy, John	Dec. 2	3656
Hartland, John Reginald	,,	3662
Hay, Donald	,,	3642
Horan, Sylvester Francis	May 26	3597
	1920.	
Hunter, James William	Mar. 2	3690
	1919.	
Ingram, John Garden	May 5	3569
Johnson, Charles	Dec. 2	3647
Johnson, Edward	Aug. 28	3603
Kennard, Brenzett George	Dec. 2	3650
Kerr, Albert James	Aug. 28	3613
King, Ernest John	,,	3601
King, William	May 26	3588
Levis, James	Aug. 28	3637
Louden, John	,,	3615
Macdonald, John Murray	,,	3627
McGrath, Stephen John	,,	3633
McKegg, Thomas Henry	Dec. 2	3657
McKenzie, Robert Mitchell	,,	3645

RETURN OF LOCOMOTIVE- AND TRACTION-ENGINE DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920—*continued.*

Name of Person.	Date of Issue.	No.
	1919.	
McLean, Lachlan Donald	Aug. 28	3621
McLoughlin, Patrick Joseph	Dec. 2	3640
McMurchie, David	May 5	3577
McWhirter, William Malcolm	May 26	3592
Mack, Archibald William	May 5	3566
Malone, James	Aug. 28	3609
Manihara, Moses	Dec. 2	3658
Mansfield, Richard	Aug. 28	3602
Marks, Sealey	May 26	3598
Maslen, William James	Aug. 28	3631
Mason, Joseph	,,	3624
Matthews, Solomon Edward	Dec. 2	3641
Mayes, Charles Alexander	May 5	3565
Milligan, Samuel	May 26	3585
Morgan, Joshua Walter	Dec. 2	3667
Morgan, William Joseph	May 26	3596
Mundy, Richard Roderick	May 5	3567
Mullins, John	Aug. 28	3609
Nation, Leslie Ryder	,,	3606
O'Hanlon, Frederick George	Dec. 2	3663
	1920.	
Oliver, Alan	Mar. 2	3682
	1919.	
Orlowski, Michael Francis	May 5	3570
Ormsby, Henry	Dec. 2	3664
Palmer, Arthur	,,	3651
Pasfield, Harold Norman	Aug. 28	3625
Pearse, Walter	May 5	3571
Penberthey, Arthur John Bennett	Aug. 28	3611
Pink, Allan	May 26	3586
Poad, Albert Edward Campbell	Aug. 28	3608
Rattley, James	,,	3599
Robertson, James	May 26	3595
Roxburgh, James	May 5	3581
Savage, James	Aug. 28	3620
Schafer, Ernest	May 5	3553
Skilton, Percy Clarence	,,	3573

Name of Person.	Date of Issue.	No.
	1919.	
Slaughter, Hugh Victor Mark	Dec. 2	3649
Smith, Sidney Charles Thomas Joseph	May 26	3591
	1920.	
Snell, William John	Mar. 2	3670
	1919.	
Stewart, Charles James	Aug. 28	3630
Stilwell, Ralph	Dec. 2	3668
Stratford, Edmund Francis	,,	3652
Strong, Herbert Onslow	Aug. 28	3638
	1920.	
Taylor, Charles George	Mar. 2	3677
Taylor, Ernest Edward	,,	3673
Thomas, Richard Allan	,,	3678
	1919.	
Tregerthen, John Driver	Dec. 2	3654
Trembath, Thomas	Aug. 28	3610
Tripp, Richard Henry	,,	3639
Vincent, George	,,	3634
Wakefield, William	May 5	3582
Walker, William Herbert	,,	3578
Ward, Henry	May 26	3590
Watson, George McLay	Dec. 2	3665
Watson, Stanley Vivian	,,	3643
	1920.	
Weale, James Philip	Mar. 2	3675
Wearn, Alfred	,,	3679
	1919.	
Weeks, Henry John	Aug. 28	3612
	1920.	
West, Bert	Mar. 2	3676
	1919.	
Wilkinson, Francis Alexander	Aug. 28	3628
Willcocks, John Edward	Dec. 2	3666
	1920.	
Wornall, Percy Taieri	Mar. 2	3683
	1919.	
Young, Thomas Gardner	May 26	3584

RETURN OF LOCOMOTIVE-ENGINE DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person.	Date of Issue.	No.
	1919.	
Johnson, John Richard	May 26	11
Lee, Ernest William Leslie	Dec. 2	13
Peace, William	May 26	12

Name of Person.	Date of Issue.	No.
	1919.	
Sharplin, Allan Jeffrey	May 5	10
Thomson, John George	,,	9

RETURN OF TRACTION-ENGINE DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person.	Date of Issue.	No.
	1919.	
Anderson, William	May 5	225
Baigent, Arthur Thompson	Dec. 2	259
Barker, George Wilfred	,,	288
	1920.	
Beattie, John Andrew	Mar. 2	306
Bell, William, jun.	,,	291
	1919.	
Blake, Charles	Aug. 28	255
Brighton, Gavin	Dec. 2	277
	1920.	
Bungard, Peter	Mar. 2	307
	1919.	
Butland, Henry	Dec. 2	287
Caithness, John	May 5	228
Clark, David Fraser	Dec. 2	278

Name of Person.	Date of Issue.	No.
	1919.	
Clarke, Henry Albert	Aug. 28	252
Coates, John Murray Patrick	Dec. 2	262
Codd, Albert Henry	May 26	232
Coffey, William	Dec. 2	271
Cormack, Peter Patterson	,,	264
Dixon, Geoffrey Marmaduke	Aug. 28	240
Douds, James	,,	242
Duncan, Robert	,,	238
	1920.	
Dunsbee, William	Mar. 2	313
	1919.	
Durston, Alfred Edward	Dec. 2	256
	1920.	
Elliott, Andrew	Mar. 2	302

RETURN OF TRACTION-ENGINE DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920—*continued.*

Name of Person.	Date of Issue.	No.
	1919.	
Emmerson, Henry	Aug. 28	239
Everest, Horace Stanley	Dec. 2	272
	1920.	
Farquharson, James	Mar. 2	293
	1919.	
Farr, Allan Stephen	Dec. 2	273
Fox, William	May 26	230
George, Alexander	Dec. 2	279
	1920.	
Gerrard, Colin	Mar. 2	312
Goodlet, Colin	May 26	233
Gray, Robert Charles	Mar. 2	294
	1919.	
Hamilton, Lloyd	Dec. 2	268
Hampton, James Christopher	,,	274
Hanafin, Michael	,,	269
Harris, Joseph Stephen	Aug. 28	250
Haynes, Francis Allan	Dec. 2	270
Henderson, Samuel James	Aug. 28	244
	1920.	
Ireland, Peter Alexander	Mar. 2	303
Jefferies, Thomas	,,	295
	1919.	
Jones, James Peter	Aug. 28	236
	1920.	
Kitts, William	Mar. 2	298
Latham, Edward Reginald	,,	308
	1919.	
Laurie, James	May 5	225
Lindsay, Alexander	Dec. 2	282
	1920.	
Logan, John	Mar. 2	304
	1919.	
Lorenz, Thomas Hunt	Aug. 28	248
McCulloch, Walter	Dec. 2	257
McDonald, Hugh	,,	280
	1920.	
McDonald, William Atkinson	Mar. 2	309
	1919.	
MacDougall, Roland Osborne	Dec. 2	263
McElhinney, Joseph	Aug. 28	251
McKay, Charles Stewart	Dec. 2	276
	1920.	
McKenzie, Angus	Mar. 2	310
	1919.	
McKissock, David Andrew	Aug. 28	241
McLaughlin, John	,,	253
Michelle, Richard Harvey, jun.	Dec. 2	283

Name of Person.	Date of Issue.	No
	1920.	
Miller, Frederick David	Mar. 2	299
	1919.	
Morton, William	Dec. 2	284
	1920.	
O'Connor, James David	Mar. 2	289
	1919.	
O'Connor, Thomas	Aug. 28	246
O'Dwyer, John	Dec. 2	260
O'Dwyer, Joseph Peter	,,	261
Patterson, James Andrew	Dec. 2	258
Pearson, George Henry	Aug. 28	245
Pearson, James	Dec. 2	285
Penfold, David Charles	Aug. 28	249
Poole, Charles Ralph	Dec. 2	281
	1920.	
Poole, Eric Tuckwell	Mar. 2	311
Reed, Ralph Edward	,,	305
	1919.	
Robinson, Herbert	May 26	234
Senior, Alfred Irvine	,,	235
Smeed, Charles	Dec. 2	265
	1920.	
Smith, James Thomas	Mar. 2	292
Spark, George Martin	,,	300
	1919.	
Staunton, Thomas Augustine	May 5	227
	1920.	
Stewart, David	Mar. 2	301
	1919.	
Templer, Alan William	Dec. 2	266
Thomas, Samuel	Aug. 28	243
	1920.	
Thompson, Horace	Mar. 2	297
	1919.	
Tiffen, James Edward	Dec. 2	267
Tozer, Ernest Martin	May 26	231
	1920.	
Warrington, George James Hudson	Mar. 2	296
	1919.	
Whyte, Alexander Ramsay	Dec. 2	286
	1920.	
Williams, Alexander	Mar. 2	290
	1919.	
Woods, William	Aug. 28	247
Wornall, Percy Taieri	Dec. 2	275
Wratt, Howard Edward	Aug. 28	254

RETURN OF WINDING (STEAM) ENGINE DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person.	Date of Issue.	No.
	1919.	
Archer, Alexander Donald	May 26	565
Brown, James Moscow	Aug. 28	566
Dunstan, Arthur William	Dec. 2	569
Hipkins, Sidney Hampton	,,	570
Pettigrew, David Miller	May 26	564

Name of Person.	Date of Issue.	No.
	1920.	
Ree, Andrew	Mar. 2	571
	1919.	
Ruffin, Reginald Campbell	Dec. 2	568
Secombe, William Frederick	Aug. 28	567

RETURN OF WINDING (ELECTRIC) ENGINE DRIVER TO WHOM CERTIFICATE OF COMPETENCY HAS BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person.	Date of Issue.	No.
	1920.	
Payne, George James	Mar. 2	63

RETURN OF ELECTRIC-TRAM DRIVERS TO WHOM CERTIFICATES OF COMPETENCY HAVE BEEN GRANTED FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Name of Person	Date of Issue.	No.
	1919.	
Adams, Arthur Victor	Oct. 3	914
Adams, Martin Thomas	June 19	885
Arnold, Francis	,,	882
Bailey, Albert	Oct. 3	906
Bartley, Russell Howard	June 19	883
Baxter, Andrew	,,	875
Billman, Leonard	Dec. 2	917
	1920.	
Boanas, Arthur Thomas	Mar. 16	973
Bolger, James	,,	946
	1919.	
Burns, Angus Sidney	Dec. 2	918
Carroll, John William	,,	928
Cassey, James	,,	919
Chammen, Claude Charles	,,	935
Coan, James Edward	Oct. 3	907
Conn, David	,,	915
	1920.	
Connor, William Patrick	Mar. 16	955
Cook, Frederick Benjamin	,,	954
Coulter, John Percy	,,	951
Cresser, David Craig	,,	945
	1919.	
Davison, William George	June 19	897
de Malmanche, Robert Andrew	Dec. 2	942
Dobbin, James St. Clair	June 19	876
	1920.	
Dumbleton, Lawrence Philip	Mar. 16	956
Dunlop, William Henry	,,	957
	1919.	
Edmonds, Arthur Edward	Oct. 3	898
	1920.	
Edwards, Alfred Henry	Mar. 16	958
	1919.	
Edwards, Arthur Robert	Oct. 3	899
Evans, William Harold	,,	909
Eyers, Charles Henry	Dec. 2	943
	1920.	
Fowler, George Andrew	Mar. 16	959
	1919.	
Gordon, Goodwin	Oct. 3	903
Grant, William Henry	,,	902
Graydon, Wilfred Wesley	,,	913
Hampshire, Ralph Victor	June 19	886
Harradence, Ernest	Oct. 3	910
Harrison, William Richard	June 19	887
Hazlett, Ernest Charles	Oct. 3	900
	1920.	
Hellaby, George William	Mar. 16	960
	1919.	
Hipwell, James Henry	Oct. 3	908
Holley, Alfred Ernest	Dec. 2	936
Holmes, William Henry	June 19	888
	1920.	
Hudson, John Henry	Mar. 16	947
	1919.	
Hurley, Jesse James	June 19	894
Hynes, Roger Frederick	Dec. 2	920
Ingle, Charles	,,	921
Ives, Ernest	,,	941
Jackson, Joseph Harold	June 19	877
Johnston, Robert	Oct. 3	904
	1920.	
Jones, Stanley Gordon	Mar. 16	972
	1919.	
Keen, Robert	June 19	889
Keilar, Alan	Dec. 2	937
	1920.	
Leng, William Christopher	Mar. 16	948
	1919.	
Lowry, Edgar James	June 19	878

Name of Person.	Date of Issue.	No.
	1920.	
McBride, David	Mar. 16	950
	1919.	
McCurdy, William George	June 19	895
McDouglas, Charles Cornelius	Dec. 2	932
McGrath, Herbert James	June 19	890
McInnes, Alexander Henry	Dec. 2	922
McLaughlin, John James Herbert	June 19	879
McMillan, William Corsan	Dec. 2	923
Martin, David	,,	944
	1920.	
Mitchell, George	Mar. 16	961
	1919.	
Munt, Hector Macdonald	June 19	891
North, Walter	Oct. 3	905
Olney, Richard Edward	Dec. 2	933
	1920.	
Peacock, Gavin Douglas	Mar. 16	962
Penman, Frederick Abraham Herbert	,,	963
	1919.	
Phillips, John	Dec. 2	938
Reeve, Vincent Eric	June 19	892
Rizzi, George	,,	896
	1920.	
Roberts, Ernest	Mar. 16	971
	1919.	
Roberts, William Kirk	Oct. 3	911
	1920.	
Robinson, Leonard Burleigh	Mar. 16	964
Sefton, Raymond Crackenthorpe	,,	965
	1919.	
Sharp, Robert	Dec. 2	930
	1920.	
Sherry, George Frederick Taylor	Mar. 16	949
	1919.	
Smith, Robert Henry	Dec. 2	929
	1920.	
Smith, Robert James	Mar. 2	966
	1919.	
Sneddon, David	June 19	880
Stewart, David James	Dec. 2	927
Stewart, George	Oct. 3	916
	1920.	
Stocks, William	Mar. 16	975
	1919.	
Swain, Walter	Dec. 2	934
Taylor, Swanherald James William	,,	924
Thompson, James Benjamin	June 19	893
Thomson, William	Oct. 3	901
Thorburn, Arthur Ronald	Dec. 2	925
Thorburn, Reggie Hunter	,,	926
Trower, Albert	,,	939
	1920.	
Urry, Llewellyn William Robert John	Mar. 16	967
	1919.	
Utteridge, George	June 19	881
	1920.	
Wainwright, William Henry	Mar. 16	968
Ward, George Albert	,,	969
Ward, Herbert	,,	952
	1919.	
Ward, Morrie Burns	Oct. 3	912
	1920.	
Watson, Ralph	Mar. 16	953
Williams, Joseph Edward	,,	974
	1919.	
Wilson, John Biggar	Dec. 2	931
Winchester, Bertie Henry	,,	940
	1920.	
Withington, John Andrew	Mar. 16	970
	1919.	
Wyatt, James	June 19	884

NUMBER OF CANDIDATES WHO WERE EXAMINED FOR EXTRA FIRST-CLASS ENGINEER, FIRST- AND SECOND-CLASS STATIONARY, WINDING (STEAM AND ELECTRIC), LOCOMOTIVE AND TRACTION, LOCOMOTIVE, AND TRACTION ENGINE DRIVERS' AND ELECTRIC-TRAM DRIVERS' CERTIFICATES FROM THE 1ST APRIL, 1919, TO THE 31ST MARCH, 1920.

Place.	Extra First.		First Class.		Second Class.		Winding.				Locomotive and Traction		Locomotive.		Traction.		Electric Tram.		Total.		Grand Total.
							Steam.		Electric.												
	P.	F.	P.	F.	P.	F.	P.	F.	P.	F.	P.	F.	P.	F.	P.	F.	P.	F.	P.	F.	
*Auckland ..	1	2	9	..	26	6	2	..	1	..	20	..	1	..	2	..	23	..	85	8	93
Awanui ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Blenheim ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2
Caberfeidh ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
*Carterton ..	..	..	..	..	3	..	..	..	..	..	1	..	..	..	1	..	..	..	5	..	5
*Christchurch ..	..	..	2	1	10	..	..	..	..	..	8	1	1	..	15	1	5	..	41	3	44
Cromwell ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
*Dannevirke ..	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
*Dunedin ..	..	..	5	2	12	1	..	..	..	..	1	..	..	1	19	4	15	..	52	8	60
Eltham ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
*Gisborne ..	..	..	..	..	2	1	..	..	..	..	2	..	..	..	1	..	..	..	5	1	6
*Greymouth ..	..	..	9	1	17	..	3	1	..	..	12	..	2	..	..	..	..	..	43	2	45
*Hamilton ..	..	..	6	6	16	5	1	..	..	..	2	2	..	..	..	..	..	..	25	13	38
*Invercargill ..	..	..	2	1	9	1	..	..	..	..	5	..	2	..	19	1	6	..	43	3	46
Karamea ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Kutarere ..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Levin	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Manaia	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Manakau ..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Masterton ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Matamau ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
*Napier	..	..	1	1	2	3	..	..	..	..	1	..	..	..	2	..	3	..	9	4	13
*Nelson	1	..	1	2	11	1	..	..	..	..	2	..	..	..	4	1	..	..	19	4	23
*New Plymouth ..	..	..	..	..	9	2	..	..	..	..	..	..	..	..	1	..	4	..	14	2	16
Norsewood ..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Oamaru.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Okato	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Opotiki	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
*Opunake ..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Otaki	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Owaka	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Pahiatua ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
*Palmerston North ..	..	3	3	5	4	..	..	..	..	1	1	..	..	1	..	..	..	10	8	18	
Pohokura ..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Raetihi	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Raglan	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
South Norsewood ..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3
*Stratford ..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	4
Takaka ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Taumarunui ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Tauranga ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Thames ..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..	6
*Timaru	1	..	..	..	6	..	..	..	..	..	1	..	..	..	18	2	..	..	26	2	28
*Wanganui ..	..	..	1	2	13	..	..	..	..	..	1	1	..	..	1	..	4	..	20	3	23
*Wellington ..	..	..	11	3	15	2	..	..	..	..	3	..	..	..	1	..	40	1	70	6	76
*Westport ..	..	..	..	..	3	..	..	..	..	..	1	..	..	..	..	..	..	..	4	..	4
Whakatane ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
*Whangarei ..	..	..	..	..	8	..	..	..	..	..	4	..	..	..	..	..	..	..	12	..	12
Totals ..	3	2	51	24	207	28	6	1	1	..	67	5	6	1	90	9	100	1	531	71	602

Return showing the Names of Owners of Additional Boilers and Transfers which require to be in Charge of Certificated Engine-drivers.

Name of Owner.	Where Boiler used.	Purposes for which used.	Horse-power of Boiler.	Diameter of Cylinders of Engine in Inches.	Class of Driver required.	Additional Boilers; Names of late Owners of Transferred Boilers; and also showing where Size of Cylinders are now amended.
		AUCKLAND DISTRICT.				
Adams, H. H.	Tararu Creek	Air compressing and crushing	40	13	Second	Late New Sylvia Gold-mining Company.
Auckland Farmers' Freezing Company	Southdown	Freezing-works	84	19 and 28	First	Size of cylinders amended.
,,	,,	,,	84	19 and 28	,,	,,
,,	,,	,,	84	19 and 28	,,	,,
Auckland Harbour Board	Auckland	Suction-dredge	93	16 and 26, 12 and 24	,,	,,
,,	,,	,,	93	16 and 26, 12 and 24	,,	,,
,,	,,	Pumping	56	Two 14 and 26	,,	,,
,,	,,	,,	56	Two 14 and 26	,,	,,
,,	,,	,,	56	Two 14 and 26	,,	,,
Auckland Shingle Company	,,	Dredging	20	8 and 13, two 5, one 4	,,	Additional.
Chamberlain, E.	,,	General	5	6½	Traction	,,
Colonial Sugar Refining Company	Chelsea	Steaming	141	Four 12, two 18½, one 16	First	Size of cylinders amended.
,,	,,	,,	141	Ditto	,,	,,
,,	,,	,,	168	,,	,,	,,
,,	,,	,,	168	,,	,,	,,
,,	,,	,,	141	Two 24, two 22, three 14, five 16, four 12, two 18½, one 16	,,	,,
,,	,,	,,	141	Ditto	,,	,,
,,	,,	Sugar-refining	35	Two 12, two 24	,,	,,
,,	,,	,,	38	Two 12, two 24	,,	,,
,,	,,	Steaming	35	Two 12, two 24	,,	,,
,,	,,	,,	35	Two 12, two 24	,,	,,
,,	,,	,,	190	Four 12	,,	,,
Fausett and Grant	Papakura	Sawmill	8	5½ and 11	Traction	Late J. Burns and Co. (Limited).
Gardner Bros. and Parker	New Lynn	Brickworks	43	14¼	First	Size of cylinders amended.
,,	,,	,,	56	14	Second	,,
Gilbred, Darcy	Manurewa	Hauling	7	4 and 7	Locomotive and traction	Additional.
Goldie, D., and Sons	Auckland	Sawmill	68	16	First	Late Waitemata Sawmilling Company.
Hellaby, R. and W.	,,	Freezing	79	12	Second	Size of cylinders amended.
,,	,,	Steaming	79	12	,,	,,
Kempthorne, Prosser, and Co.	Westfield	Chemical works	25	10 and 17	First	,,
Madill, J. J.	Tuakau	General	5	7½	Traction	Late B. A. Scanlon.
New Zealand Dairy Association (Limited)	Akaaka	Cheese-factory	30	6½	Second	Late Cambridge Co-operative Dairy Company.
New Zealand Government Lands and Survey Department	Thames	Crane	11	Two 9	,,	Additional.
New Zealand Laundry Company	Auckland	Laundry	43	10	,,	Size of cylinders amended.
New Zealand Government Mental Hospitals Department	Avondale	Steaming	30	9	,,	,,
Northern Steamship Company	Auckland	Hoisting	25	Two 5, two 6	,,	,,
Parker-Lamb Timber Company	,,	Sawmill	74	20¼	First	,,
,,	,,	,,	85	20¼	,,	,,

RETURN SHOWING THE NAMES OF OWNERS OF ADDITIONAL BOILERS AND TRANSFERS WHICH REQUIRE TO BE IN CHARGE OF CERTIFICATED ENGINE-DRIVERS—*continued.*

Name of Owner.	Where Boiler used.	Purposes for which used.	Horse-power of Boiler.	Diameter of Cylinders of Engine in Inches.	Class of Driver required.	Additional Boilers; Names of late Owners of Transferred Boilers; and also showing where Size of Cylinders are now amended.
AUCKLAND DISTRICT—*continued.*						
Smeed, W.	Tuakau	General	5	5½ and 8	Traction	Additional.
Smeed, W. A.	,,	Hauling	6	4 and 7	,,	Late Auckland City Council.
Steel Construction Company	Auckland	Steelmaking	25	14	Second	Late D. Goldie.
Takapuna Tramway and Ferry Company	Takapuna	Tramways	23·36	Two 12	Locomotive	Additional.
,,	,,	,,	23·36	Two 12	,,	,,
Talisman Consolidated Gold-mining Company	Karangahake	Pumping and winding	95	18 and 35	First and winding	Size of cylinders amended.
,,	,,	Ditto	95	18 and 35	,,	,,
Thames County Council	Thames	General	6	8¼	Traction	Late W. A. Smeed.
Waihi Gold-mining Company	Waihi	Winding	70	Two 18	Winding	Size of cylinders amended.
,,	Waikino	Steaming	40	8	Second	,,
,,	Waihi	Winding	70	Two 18	Winding	,,
,,	,,	Sawmill	40	14¼	First	,,
,,	,,	Pumping and winding	145	60 and 110	First and winding	,,
,,	,,	Ditto	145	60 and 110	,,	,,
,,	,,	,,	88	60 and 110	,,	,,
,,	,,	,,	88	60 and 110	,,	,,
Waihi Grand Junction Gold-mining Company	,,	Winding	62	Two 10	Winding	Late Waihi Extended Gold-mining Company.
,,	,,	,,	80	Two 12	,,	Size of cylinders amended.
Waitemata County Council	Point Chevalier	Quarry	12	Two 8½	Second	Late Auckland City Council.
Wilson, J. R.	Morningside	,,	67	16½	First	Size of cylinders amended.
Wilson and Canham	Panmure	Fellmongery	20	Two 12¼	,,	,,
Wilson's (New Zealand) Portland Cement Company	Warkworth	Steaming	70	21½ and 44⅛, 17 7/16 and 29½, one 16¼, one 30, one 9	,,	,,
Ditto	,,	,,	70	Ditto	,,	,,
,,	,,	,,	70	,,	,,	,,
,,	,,	,,	72	,,	,,	,,
,,	,,	,,	236	,,	,,	,,
AUCKLAND NORTH DISTRICT.						
Dargaville Timber Company	Dargaville	Sawmill	52	Nil	Second	Late R. P. Gibbons (Limited).
Hamilton and Jones	Mokau	Hauling	8	7 and 11½	Locomotive and traction	Late Parker and Lamb.
Hawkins, J. S.	Tangawahine	Sawmill	65	14¼	First	Late Direct Supply Furniture Company.
Kaitaia Co-operative Dairy Company	Kaitaia	Butter-factory	30	12	Second	Additional.
Kauri Timber Company	Kawiti	Hauling	19½	Two 8⅜	,,	,,
New Zealand Government Lands and Survey Department	Kaitaia	Dredging	18	Two 8	,,	,,
Slater Bros.	Victoria Valley	Sawmill	25	10	,,	,,
Whangarei County Council	Whangarei	Stone-crushing	5	7½	Locomotive and traction	Late McKenzie and Stirling.
Whangaroa County Council	Whangaroa	General	8	6¾ and 11½	Traction	Additional.
Wilson's (New Zealand) Portland Cement Company	Portland	Generator	50	Turbine	First	Late New Zealand Portland Cement Company.
Ditto	,,	,,	50	,,	,,	,,

AUCKLAND SOUTH DISTRICT.

Barr, R. G.	Kopaki	Sawmill	20	12	Second	Late Kotuku Oilfields Syndicate.
Beggs, David	Bruntwood	,,	7	8½	Traction	Late T. Henwood.
Cambridge Co-operative Dairy Company	Hautapu	Cheese-factory	35	9	Second	Size of cylinders amended.
,,	Monovale	,,	26	8	,,	,,
Innis, C. L., and Co.	Hamilton	Brewery	16	9½	,,	,,
McLean, D., and Co.	Raglan	Pile-driving	30	Two 8¼	,,	Additional.
Manawaru Cheese-factory Company	Manawaru	Cheese-factory	30	Nil	,,	,,
New Zealand Dairy Association (Limited)	Matamata	Dried-milk factory	40	One 8, one 13	First	Size of cylinders amended.
,,	,,	,,	50	13	Second	,,
,,	Matangi	,,	95	11 and 19	First	,,
,,	,,	,,	95	11 and 19	,,	,,
New Zealand Farmers' Co-operative Bacon and Meat Packing Company	Frankton Junction	Freezing	88	14½	,,	,,
New Zealand Government Public Works Department	Manunui	Stone-crushing	16	Two 8¾	Second	Late W. Forrest.
Orini Sawmilling Company	Te Hoe	Sawmill	20	12	,,	Late A. Hossack.
Parker-Lamb Timber Company	Hangatiki	,,	52	16	First	Late Kauri Timber Company.
,,	,,	Hauling	9	Two 8	Locomotive	Late Northern Timber Company.
Taupiri Coal-mines (Limited)	Huntly	Air-compressors	158	9¾ and 18	First	Size of cylinders amended.
,,	,,	Pumping and air-compressors	72	Two 18	,,	,,
,,	,,	Ditto	72	Two 18	,,	,,
,,	,,	,,	72	Two 18	,,	,,
,,	,,	Air-compressors	158	9¾ and 18	,,	,,
Thames Valley Co-operative Dairy Company	Waihou	Cheese-factory	25	10	Second	Late Te Aroha Dairy Company.
Waihou Valley Co-operative Dairy Company	Te Aroha West	Glaxo-factory	83	12¼ and 22	First	Additional.
,,	,,	,,	50	12¼ and 22	,,	Size of cylinders amended.
,,	,,	,,	57	12¼ and 22	,,	,,
,,	,,	,,	57	12¼ and 22	,,	,,
,,	,,	,,	45	12¼ and 22	,,	,,
Waikato Co-operative Dairy Company	Otorohanga	Dairy factory	27·9	12	Second	Late Te Kuiti District Co-operative Dairy Company.
Waikato Flax-milling Company	Tauhei	Flax-mill	12	7 and 11¾	,,	Late F. Seifert.
,,	Te Kauwhata	,,	16	Two 8	,,	Late Griffiths Bros. and Jordan.
Waikato Hospital Board	Hamilton	Laundry-work	37	6 and 10	,,	Size of cylinders amended.
,,	,,	,,	37	6 and 10	,,	,,
Waitoa Flax-milling Company	Waitoa	Flax-mill	40	14¼	First	Late R. J. Hynes.
Waitomo Sawmilling Company	Waitomo Valley	Hauling	13·8	Two 8¾	Locomotive	Additional.
Walker, J. S.	Hairini	Chaff-cutting	6	7¼	Traction	Late W. J. Shaw.
Zealandia Co-operative Milk Foods (Limited)	Waharoa	Milk-powder factory	132	Nil	Second	Additional.
,,	,,	,,	132	,,	,,	,,
,,	,,	,,	132	,,	,,	,,

CANTERBURY DISTRICT.

Anson, George	Christchurch	General	8	9	Traction	Additional.
Bailey, R.	Ashley	Chaff-cutting	6	8	,,	Late Batchelor and Co.
Barker, George	Loburn	,,	8	9	,,	Late W. Gee.
Bowman, E. A.	Oxford	General	8	6½ and 10	,,	Late J. Mills.
Campbell Bros.	Christchurch	Motor-wagon	5	4 and 6	,,	Late Canterbury Frozen Meat Company.
Canterbury Frozen Meat and Dairy Produce Company	Belfast	Manure-mixing	15	Nil	Second	Size of cylinders amended.
Ditto	,,	,,	15	,,	,,	,,
,,	,,	,,	15	,,	,,	,,
Central Dairy Company	Addington	Butter-factory	16	7 and 11	,,	,,

RETURN SHOWING THE NAMES OF OWNERS OF ADDITIONAL BOILERS AND TRANSFERS WHICH REQUIRE TO BE IN CHARGE OF CERTIFICATED ENGINE-DRIVERS—*continued.*

Name of Owner.	Where Boiler used.	Purposes for which used.	Horse-power of Boiler.	Diameter of Cylinders of Engine in Inches.	Class of Driver required.	Additional Boilers; Names of late Owners of Transferred Boilers; and also showing where Size of Cylinders are now amended.
		CANTERBURY DISTRICT—*continued.*				
Christchurch Tramway Board	Christchurch	Road-wagon	4	4½ and 7	Traction	Late Christchurch Brick Company.
Cooper Bros.	Oxford	General	8	6½ and 10½	,,	Late E. Herman.
Croy, A.	Brookside	Threshing	8	6⅜ and 11	,,	Late F. Pierson.
Dainties Limited	Christchurch	Biscuit-factory	24	Nil	Second	Late Atlas Biscuit Company.
Doreen, F. G.	Loburn	General	6	8½	Traction	Late Quinlan and Carney.
Douds, James	Ashley	Chaff-cutting	6	8	,,	Late Joseph Skilling.
Doyle, R. B.	Leeston	General	9	6½ and 10	,,	Late R. B. Coe.
Garland, J. E.	Christchurch	Road-wagon	6	4 and 7	,,	Additional.
Garlick Bros.	Oxford	General	6	8	,,	Late Humm and Co.
Greer, David	Papanui	,,	8	6½ and 10	,,	Late H. Gibb.
Gurdler, H.	Christchurch	,,	8	8¾	,,	Late Everest and Sons.
Hamilton, W.	Southbrook	,,	8	9	,,	Late J. J. Matthews.
Hampton Bros.	Southbridge	,,	8	6⅜ and 11	,,	Late F. Quigley.
Hayes, William	Halswell	Chaff-cutting	5	8 and 5½	,,	Size of cylinders amended.
Homebush Brick and Coal Company	Glentunnel	Pottery-works	45	14 5/16	First	Late Homebush Pottery Company.
Hunsley, William	Christchurch	Sawmill	15	12 and 21	,,	Size of cylinders amended.
Hunt, A. E. L.	West Melton	General	8	9	Traction	Late the Clinton Estate.
Kaiapoi Woollen Manufacturing Company (Limited)	Kaiapoi	Woollen-factory	16	7 and 11¼	Second	Late Vangioni and Walker.
Kowai County Council	Balcairn	Road-works	9½	6½ and 11	Traction	Additional.
Lill, Frederick	Dunsandel	Threshing	8	9	,,	Late James Walker.
McMillan, D.	Waddington	General	5	7	,,	Late Humm and Co.
McIntosh, Donald	Woodgrove	,,	8	6½ and 10½	,,	Late H. J. Mehrtens.
Maddren Bros.	Christchurch	Twine-manufacturing	20	12¾ and 21	First	Size of cylinders amended.
Mehrtens, H. J.	Rangiora	General	8	9	Traction	Late D. McIntosh.
Neiman, George	Annat	,,	8	9 7/16	,,	Late Charles Wroth.
New Zealand Government Mental Hospitals Department	Sunnyside	Heating and cooking	30	Two 12, six 4, two 3	First	Size of cylinders amended.
North Canterbury Hospital and Charitable Aid Board	Christchurch	Heating	27	One 11, one 5, two 5	,,	,,
Ditto	,,	,,	40	14¼	,,	Additional.
North Canterbury Milling Company	Cust	Fouor-mill	20	7 and 12	Second	Late Ralph Gardner.
Paparua County Council	Sockburn	General	6	5¾ and 9	Traction	Late Malvern County Council.
Pearson, W. G.	Southbrook	,,	8	9	,,	Late H. Storer.
Rossiter, A.	Rangiora	,,	8	6¼ and 11	,,	Size of cylinders amended.
Scott Bros.	Christchurch	,,	6	8	,,	Additional.
Smith, D. J.	Kirwee	,,	7	8¾	,,	Late G. D. Smith.
Smith Sawmilling Company	Christchurch	Sawmill and electric light	56	12 and 20	First	Size of cylinders amended.
Sowden, F. G.	Aylesbury	Threshing	8	6½ and 10½	Traction	Additional.
Storer, Edward	Bennett's Junction	General	5	5½ and 8	,,	Late T. Reid.
Thorne, M.	Hororata	,,	8	6 and 10½	,,	Late T. A. Shields.
Thornley, Samuel	Hawarden	,,	8	6½ and 10	,,	Late T. A. Staunton.
Tizzard, S.	Robinson's Bay	,,	9	6½ and 10	,,	Late C. Marshall.
Waimairi County Council	Papanui	Hauling	8	9	,,	Size of cylinders amended.
Ward, G.	Hornby	General	8	9	,,	Additional.

HAWKE'S BAY DISTRICT.

Barry, D. J.	Gisborne	Brewery	62	10	Second	Size of cylinders amended.
Borthwick, T., and Sons	Pakipaki	Hauling	12	Two 9	Locomotive	,,
Farmery, E.	Hastings	Chaff-cutting	8	6¼ and 8½	Traction	Late L. Higgins.
Fernie, D.	Chesterhope	Farm-work	6	6 and 10½	,,	Late Mills Bros.
Maharahara Co-operative Dairy Company	Maharahara	Cheese-factory	20	6	Second	Size of cylinders amended.
Mills, J.	Hastings	Hauling	6	6 and 10½	Traction	Late Mills Bros.
Napier Gas Company*	Napier	Hauling-winch	10	Two 6	Second	Size of cylinders amended.
,,	,,	,,	10	Two 6	,,	,,
Napier Harbour Board	Port Ahuriri	Hauling	8	Two 8	Locomotive	,,
,,	,,	,,	23	Two 8	,,	Additional.
,,	,,	Crane	17½	Two 8	Second	,,
Neal, T. L.	Taradale	Hauling	6	5½ and 9	Traction	Late A. S. Codd.
Pilcher, J.	Tomoana	Chaff-cutting	6	6 and 11	,,	Late F. Pilcher.
Wairoa Farmers' Co-operative Meat Company	Wairoa	Freezing	95	18 and 32	First	Additional.
,,	,,	,,	95	18 and 32	,,	,,
Wairoa Hospital Board	,,	Heating	17	Nil	Second	Late Puhaka Dairy Company.
Watkins, Alfred	Ongaonga	Threshing	7	5½ and 9	Traction	Late C. Derritt.
White, W.	Hastings	Hauling	6	10	,,	Late J. Satterthwaite.
Willan, T.	Pakowhai	Chaff-cutting	7½	6½ and 10½	,,	Late J. Willan.
Withell, John	Frasertown	Farm-work	16	6¼ and 10¾	,,	Additional.

MARLBOROUGH DISTRICT.

Blake, Charles	Blenheim	Motor-wagon	5	4⅛ and 7 1/16	Traction	Additional.
Carr, William	Flat Creek	Hauling and sawmill	8	6½ and 11	,,	Late Griffith Bros. (Limited)
Manson and Williamson	Blenheim	General	6	5½ and 9	,,	Late J. Jermyn.
O'Dwyer Bros.	,,	,,	6	5 and 9	,,	Late J. Alsop.
Patchett Bros.	,,	,,	8	6½ and 11	,,	Late John Patchett.
,,	,,	,,	8	6½ and 11	,,	,,
Pelorus Sawmilling Company	Canvastown	Sawmill	20	8 and 12½	First	Late F. Smart.
Rai Valley Co-operative Dairy Company	Flat Creek	Cheese-factory	20	8	Second	Additional.
Robertson Bros.	Tunakino Valley	Sawmill	30	12 3/16	,,	,,
Snowden and Webly	Springlands	Threshing	6	6 and 10½	Traction	Late W. D. and T. Pike.

NELSON NORTH DISTRICT.

Bryant Bros.	Tui	Bush locomotive	6	5½ and 8	Locomotive	Late W. C. Beeby.
Hollis Bros.	Wakefield	General	6	8	Traction	Late J. W. Win.
Kirkpatrick and Co. (Limited)	Nelson	Fruit-preserving factory	67	7 and 11, two 9, one 8, one 6	Second	Size of cylinders amended.
New Zealand Marble Company	West Takaka	Marble-works	16	7 and 11¼	,,	Late J. and A. Wilson.
Robertson Bros. (Limited)	Nelson	Woodworking	34	14¼	First	Additional.

NELSON SOUTH DISTRICT.

Barnes, J., and Co.	Karamea	Sawmill	20	7 and 11	Second	Late Karamea Sawmilling Company.
Blackwater Mines (Limited)	Waiuta	Steaming	8	6¾ and 11½	Traction	Late Consolidated Goldfields of New Zealand (Limited).
Blackwater North Gold-mining Company	,,	Mining	65	17 and 10	First and winding	Additional.
Forest Sawmilling Company	Bell Hill Road	Sawmill	64	16	First	Size of cylinders amended.

*Boilers coupled.

RETURN SHOWING THE NAMES OF OWNERS OF ADDITIONAL BOILERS AND TRANSFERS WHICH REQUIRE TO BE IN CHARGE OF CERTIFICATED ENGINE-DRIVERS—*continued.*

Name of Owner.	Where Boiler used.	Purposes for which used.	Horse-power of Boiler.	Diameter of Cylinders of Engine in Inches.	Class of Driver required.	Additional Boilers; Names of late Owners of Transferred Boilers; and also showing where Size of Cylinders are now amended.
NELSON SOUTH DISTRICT—*continued.*						
Morris and Co.	Cronadun	Sawmill	14	7 and 12	Second	Additional.
New Zealand Government State Coal-mines	Rewanui	Mining	64	7 and 11, one 12, one 6, two 4	,,	Size of cylinders amended.
Point Elizabeth Coal-mining Company	Brunner	,,	20	One 12, one 8	,,	,,
,,	,,	,,	35	Two 8½, two 5	,,	,,
,,	,,	,,	60	12	,,	,,
Waitahu Coal Company	Waitahu	Hauling	23	Two 9½	Locomotive	Additional.
Westland Gold Prospecting Company	Humphrey's	Dredging	55	8 and 12¾	First	Late D. Ziman and Co.
Westland Sawmilling Company	Cameron's	Sawmill	64	14¼	,,	Late Murray's Freehold Gold-dredging Company.
Westport Coal Company	Denniston	Power-house	20	14¼	,,	Additional.
Westport-Stockton Coal Company	Ngakawau	Mining	83	Two 12, two 17, two 26, two 8, one 6, one 5½	,,	,,
,,	,,	,,	83	Ditto	,,	,,
OTAGO DISTRICT.						
Anderton, Edwin	Milton	General	8	9	Traction	Late G. Porter.
Brown Bros. and Loudon	Abbotsford	Fellmongery	20	11½	Second	Additional.
Christie and Begg	Ratanui	Sawmill	20	Two 10	,,	Late Dawson and McKechnie.
Crawford, T. P.	Oamaru	Threshing	8	6¼ and 10½	Traction	Late J. J. Henderson.
Dennison, F. W.	,,	Steam-wagon	5	Two 4½	,,	Late Ireland and Co.
Fleming and Co.	Milton	Flour-mill	25	12⅝ and 22¼	First	Size of cylinders amended.
Garlick, Charles, and Co.	Heriot	General	8	9	Traction	Late T. Jenkins.
Hay, William	Macrae's Flat	Chaff-cutting	7	8½	,,	Late Smellie Bros.
Kaitangata Co-operative Dairy Company	Kaitangata	Creamery and cheese-factory	16	6½	Second	Late Barewood Gold-mining Company.
Kean, Martin	Waiwera South	Threshing and chaff-cutting	8	9	Traction	Late J. Main.
McClelland, Robert	Heriot	General	8	9	,,	Late F. J. Thurston.
Momona Dairy Factory	Momona	Dairy factory	16	6½	Second	Late Otago Central Foundry.
Middleton, Thomas	Wangaloa	Chaff-cutting	6	8	Traction	Late A. Campbell and Co.
New Zealand Government Public Works Department	Kaitangata	Pile-driving	16	Two 7	Second	Late J. Knewstubb.
Reid Bros.	Toiro	General	6	7½	Traction	Late Reid and Gray.
Ross and Glendining	Roslyn	Woollen-mill	118	18 and 32	First	Additional.
,,	,,	,,	118	18 and 32	,,	,,
,,	,,	,,	118	18 and 32	,,	,,
,,	Dunedin	Motor-wagon	6	Two 7¼	Traction	Late Dunedin City Council.
South Otago Freezing-works	Finegand	Hauling	8	9	,,	Late G. Petrie.
,,	,,	Freezing and electric power	64	15 and 28, 12½ and 23, 10 and 16½	First	Size of cylinders amended.
,,	,,	Ditto	64	Ditto	,,	,,
,,	,,	,,	118	,,	,,	,,
Steffens, John	St. Clair	Miniature railway	314	Two 2⅛	Locomotive	Additional.
Williams, A.	Ratanui	General	8	9⅛	Traction	Late H. Russell.

Black Diamond Coal Company (Limited)	Nightcaps	Hauling	2	Two 5	Locomotive — Late S. Mills.
Brighton, Gavin	,,	General	8	9	Traction — Late John Crooks.
Butler, C. J.	Awarua Plains	,,	8	9	,, — Late J. A. Keith.
Butler, Frederick	Lochiel	Chaff-cutting	4½	6½	,, — Late John Patterson.
Butler, J. T.	Winton	General	4	6½	,, — Late Keith and Butler.
Clive, James	Spar Bush	,,	8	9	,, — Late J. E. Watson and Co. (Limited).
Cowan and Caithness	Waituna	Chaff-cutting	6½	7¼	,, — Additional.
Craig, W. B.	Riversdale	Threshing	8½	9	,, — Late McRobie Bros.
Crooks, John	Wairio	General	8	9	,, — Late E. Coster.
Denniston, John	Riversdale	,,	9	6½ and 11	,, — Late W. W. Knowles.
Dixon, F. and T.	Mataura	,,	7	5¼ and 9	,, — Late Thomas Crane.
,,	,,	Chaff-cutting	3½	6½	,, — Late F. Dixon.
Donaghy, Patrick	Dipton	Threshing	9½	9	,, — Late H. Ewan.
Ewan, H.	,,	Chaff-cutting	4½	4½ and 6⅞	,, — Late E. C. Sinclair and Sons.
Ferrier, Robert	Waituna	General	8	8½	,, — Size of cylinders amended.
Graham, J. P.	Mataura	Flax-mill	20	9⅜ and 13¼	First — Late G. Bichan.
Halliday Bros.	Kamahi	Sawmill	20	Two 10	Second — Late William Halliday.
,,	,,	General	8	9	Traction — ,,
Holmes, H., and Son (Limited)	Rosedale	Woollen-mills	20	Nil	Second — Late Electric No. 2 Gold-dredging Company.
Invercargill Borough Council	Invercargill	Road-roller	5½	5¼ and 8½	Traction — Size of cylinders amended.
,,	,,	Pumping	48	Two 12	First — Additional.
McDonald, H.	Seaward Downs	Threshing and chaff-cutting	8	9	Traction — Late G. Cushnie.
McKay and Co.	Tihaka	Sawmill	14	Two 8½	Second — Late D. McKay.
McKinnon, A., jun.	Gore	Threshing and chaff-cutting	8	6½ and 10½	Traction — Size of cylinders amended.
McKenzie Bros.	Isla Bank	General	8	9	,, — Late John Lindsay.
McLean, James	Blackmount	Chaff-cutting	8	8½	,, — Late J. King.
McSkimming and Co.	Waikiwi	Hauling	4½	6½	,, — Late Todd and Wilson.
Main, W. A.	Winton	General	8	9	,, — Late J. W. Deegan.
Mataura Island Dairy Factory	Mataura Island	Dairy-factory	39	7	Second — Additional.
Moffat, T. D.	Freshford	Pumping and hauling	16	Two 6, two 6¾	,, — Late Craig and Wilks.
Murihiki Sawmilling Company	Limehills	Sawmill	14	Two 8½	,, — Late Keith and Butler.
New Zealand Pine Company	Gorge Road	,,	52	14⅛	,, — Size of cylinders amended.
New Zealand Sugar-of-Milk and Casein Company	Wyndham	Sugar-of-milk factory	56	10	,, — ,,
,,	,,	,,	50	10	,, — ,,
,,	Edendale	,,	54	Two 10	,, — ,,
,,	,,	,,	54	Two 10	,, — ,,
,,	,,	,,	144	One 12, one 7	,, — ,,
Ohai Railway Board	Wairio	Hauling	30	Two 12 5/16	Locomotive — Additional.
Ray, Alexander	Mossburn	Threshing	8	9	Traction — Late John Denniston.
Reynolds Bros.	Gore	Chaff-cutting	6	7	,, — Late F. Trapski.
Reynolds, W.	,,	,,	8	9	,, — Late N. Knowles.
Scammell and Saunders	Spar Bush	General	8	9	,, — Late J. E. Watson and Co. (Limited).
Smith, W., and Co.	Nightcaps	Hauling	18	5 and 10	Second — Late Thistle Coal Company.
Sutherland, James	Te Tua	Sawmill	20	Two 10	,, — Late Traill Bros. and Smythies.
,,	Longbush	Flax-mill	12	7⅜ and 11¾	,, — Size of cylinders amended.
Thornbury Co-operative Dairy Factory	Thornbury	Dairy factory	25	5¼	,, — Late H. O'Kane.
Traill Bros. and Smythies	Longwood	Sawmill	36	12 and 12½	First — Size of cylinders amended.
Waiau Timber Company	Papatotara	Hauling	10	Two 7	Locomotive — Late I. W. Raymond and Co.
,,	,,	Sawmill	55	Two 9¾	Second — ,,

RETURN SHOWING THE NAMES OF OWNERS OF ADDITIONAL BOILERS AND TRANSFERS WHICH REQUIRE TO BE IN CHARGE OF CERTIFICATED ENGINE-DRIVERS—*continued.*

Name of Owner.	Where Boiler used.	Purposes for which used.	Horse-power of Boiler.	Diameter of Cylinders of Engine in Inches.	Class of Driver required.	Additional Boilers; Names of late Owners of Transferred Boilers: and also showing where Size of Cylinders are now amended
TARANAKI DISTRICT.						
Adams, John	Alton	Hauling	5	4 and 6½	Traction	Late A. Hatrick and Co.
Borthwick, T., and Sons	Waitara	Freezing	85	18 and 32	First	Size of cylinders amended.
,, ,,	,,	,,	65	18 and 32	,,	,,
Gilberd, J. B., and Sons	Castlecliff	Soapworks	40	6¼ and 9⅛	Second	,,
Hawera Co-operative Dairy Company (Limited)	Hawera	Cheese-factory	31	6½	,,	,,
,,	Whareroa	,,	27	6½	,,	Late Moa Petroleum Company.
James and Co.	Stratford	Tannery	35	One 10, one 11	,,	Size of cylinders amended.
Kaupokonui Co-operative Dairy Company	Waiokura	Cheese-factory	25	8	,,	,,
McCluggage, J.	Pohokura	Sawmill	20	12¼	,,	,,
Ngaere Co-operative Dairy Company	Ngaere	Cheese and butter factory	34	9	,,	,,
New Zealand Casein Company	Aramoho	Steaming	30	12	,,	Late Wanganui Dairy Company.
,,	,,	Casein-factory	25	13	,,	Size of cylinders amended.
,,	,,	,,	17	13	,,	,,
Patea Farmers' Freezing Company	Patea	Freezing	95	9 and 16	First	Additional.
Pembroke Co-operative Dairy Company	Pembroke Road	Cheese-factory	17	9½	Second	Size of cylinders amended.
Riverdale Co-operative Dairy Company	Inaha	Cheese and butter factory	38	10	,,	,,
Stratford Farmers' Co-operative Dairy Company	Toko	Cheese-factory	28	8	,,	Late H. Brown.
Tahora Land and Sawmilling Company	Tahora	Sawmill	32	13¾	,,	Late J. Robson.
Taranaki Farmers' Meat Company	New Plymouth	Hauling	25	Two 9½	Locomotive	Additional.
Taranaki Producers' Freezing Company	Moturoa	Freezing	42	9 and 15, 10½ and 21½	First	Size of cylinders amended.
T. L. Joll Co-operative Dairy Company	Okaiawa	Butter-factory	16	Nil	Second	,,
Wanganui Corporation Gas Company	Wanganui	Gasworks	48	5 and 12	,,	,,
,,	,,	,,	26	5 and 12	,,	,,
Warea Co-operative Dairy Company	Newall Road	Cheese-factory	20	8½	,,	,,
TIMARU DISTRICT.						
Batchelor, Mrs. H.	St. Andrew's	General	9	9	Traction	Late R. F. Batchelor.
Boulton, A. H.	,,	,,	8	9	,,	Late D. Munro.
Brosnahan, D.	Cave	,,	8	9	,,	Late J. F. Wilson.
Clark, W. J.	Levels	,,	8	6½ and 11	,,	Additional.
,,	,,	,,	8	9	,,	Late James Greig.
,,	,,	,,	8	6½ and 11	,,	Late W. Kellahan.
,,	,,	,,	8	9	,,	Additional.
Caffey Bros.	Mayfield	,,	8	6½ and 10½	,,	Late L. Frost.
Cruickshank, A.	Gleniti	,,	7	6 and 10	,,	Late J. Kellahan.
Dick and Allan	Fairlie	,,	8	9	,,	Late Campbell Bros.
Ellery Bros.	Ealing	,,	6	6 and 10	,,	Late W. Copeland.
Fifield, R. J., and F.	Woodbury	,,	8	6 and 10½	,,	Late E. Dann.
Gascoyne, A.	Pleasant Point	,,	7	8⅝	,,	Late Hopkins Bros.
Gibson, S	Makikihi	,,	8	6 and 10½	,,	Size of cylinders amended.

Gillon, J.	Waimate	General	8	9	Traction	Late Morrison and Malthus.
Gudsell, A.	Winchester	,,	8	6⅔ and 11	,,	Additional.
Hamilton, L.	Makikihi	,,	8	9	,,	Late A. E. Jackson.
Hamlyn, J.	Timaru	,,	8	9¼	,,	Late Mrs. Scannell.
Harris Bros.	,,	,,	10	7 and 11½	,,	Late J. McIntyre.
Henderson Bros.	Orari	,,	8	6½ and 10½	,,	Late T. Lyon.
Lane, George	Waimate	,,	6	8⅓	,,	Late Lane Bros.
Lane, Walker, and Rudkin (Limited)	Ashburton	Woollen-factory	20	Nil	Second	Additional.
McLachlan, J., jun.	,,	General	8	9¼	Traction	Late J. Nelson.
McLachlan, John	,,	,,	9	6⅓ and 10	,,	Size of cylinders amended.
Martin, C.	Temuka	,,	6	8	,,	Late A. Martin.
Meredith and Co.	Waimate	,,	8	9	,,	Late H. Hayman.
Meyers, J.	Studholme Junction	,,	8	9	,,	Late G. Hicks.
Orari Co-operative Dairy Company	Orari	Dairy factory	16	7 and 11¼	Second	Additional.
Quinn Bros.	Makikihi	General	8	8	Traction	Late W. Quinn.
Ruddenklau, H.	Waimate	,,	9⅓	6¼ and 10½	,,	Size of cylinders amended.
,,	,,	,,	8	6¼ and 10¾	,,	,,
Smith, G. W.	Flemington	Threshing	8	9	,,	Late J. Copeland.
Soal, J. L.	Tinwald	General	10	6¾ and 11¾	,,	Late A. E. Church.
Stokes, H.	Waitohi Flat	,,	8	9	,,	Late J. Preddy.
Temuka Dairy Company	Temuka	Dairy factory	27	9	Second	Additional.

WELLINGTON DISTRICT.

Allender Bros.	Petone	Soapworks	23	8½	Second	Additional.
Belmont Quarry Company	Belmont	Stone-crushing	25	13	,,	Late C. and A. Odlin.
Burling, F. W.	Rongomai	Sawmill	12	Two 8½	,,	Late Parker and Co.
Cook and Cook	Petone	Woodwork	26	10 9/16	,,	Size of cylinders amended.
Co-operative Dairy Producers' Freezing Company (Limited)	Wellington	Freezing	40	19 and 28	First	Late Wellington Meat Export Company.
Couchman, C. T.	Petone	Laundry	16	6	Second	Late Crabtree and Sons.
Dominion Ferrolith Company	Melling	Tile-factory	16	9	,,	Size of cylinders amended.
Greytown-Wairarapa Dairy Company	Greytown	Cheese-factory	20	6⅔	,,	,,
Karapote Sawmilling Company	Akatarawa	Sawmill	14	Two 8¾	,,	Late Reid and Sommerville.
Kelburn and Karori Tramway Company	Wellington	Cable trams	26	7 and 16	First	Size of cylinders amended.
,,	,,	,,	26	7 and 16	,,	,,
Kuku Dairy Company	Ohau	Dairy factory	25	Nil	Second	Additional.
Laing, A.	Levin	General	6	8	Traction	Size of cylinders amended.
Lever Bros.	Petone	Soapworks	50	14 and 19	First	,,
Levin Co-operative Dairy Company	Levin	Butter-factory	18	8½	Second	,,
McGregor, D.	Gladstone	Cutting firewood	6	8	Locomotive and traction	Late McGregor Bros.
Municipal Milk Depot	Wellington	Cold storage	27	12	Second	Late Fresh Food and Ice Company.
,,	,,	Sterilizing	27	12	,,	,,
Martinborough Sawmilling Company	Martinborough	Sawmill	12	Two 8½	,,	Additional.
Murphy Bros.	Wellington	Brickmaking	18	10¾	,,	Late Trevor Bros.
Newton, J.	Kaiwarawara	Steaming	20	Nil	,,	Additional.
Parkvale Co-operative Dairy Company	Carterton	Dairy factory	22	6	,,	,,
Price, C.	Masterton	Threshing	5	7	Locomotive and traction	Late J. A. Scorrar.
Quinlan Bros.	Ihuraua	Sawmill	23	13	Second	Late J. Anderson.
Rathbone, Thomas	Carterton	Woodworking	19	7	,,	Size of cylinders amended.
Te Mukanui Flax-milling Company	Tokomaru	Flax-mill	57	One 10, one 16, one 26	First	Late Opui Fibre Company.
Tokomaru Flax-milling Company	,,	,,	47	12 and 20	,,	Late G. Seifert.

RETURN SHOWING THE NAMES OF OWNERS OF ADDITIONAL BOILERS AND TRANSFERS WHICH REQUIRE TO BE IN CHARGE OF CERTIFICATED ENGINE-DRIVERS—*continued.*

Name of Owner.	Where Boiler used.	Purposes for which used.	Horse-power of Boiler.	Diameter of Cylinders of Engine in Inches.	Class of Driver required.	Additional Boilers; Names of late Owners of Transferred Boilers; and also showing where Size of Cylinders are now amended.
WELLINGTON DISTRICT—*continued.*						
Union Steamship Company (Limited)	Wellington	Hoisting	34	Four 6, four 7	Second	Size of cylinders amended.
Uren, Park, and Mackay	Akatarawa	Sawmill	16	$10\frac{3}{4}$	,,	Late Riverhead Sawmilling Company.
Vaughan and Wilkinson	Solway	Threshing	5	5 and $8\frac{1}{2}$	Traction	Late E. Jones.
Wellington City Council	Wellington	Tramway power-house	65	One 17, one $24\frac{1}{2}$, one $37\frac{1}{2}$	First	Size of cylinders amended.
Wellington Farmers' Meat Company	Waingawa	Freezing	74	$19\frac{1}{2}$ and 34	,,	Additional.
Wellington Harbour Board	Wellington	Fire-engine	16	Two 8	Second	Size of cylinders amended.
Wellington Hospital and Charitable Aid Board	,,	Laundry	70	Nil	,,	Additional.
Wellington Meat Export Company	,,	Freezing	40	19 and 28	First	Size of cylinders amended.
Windsor Manufacturing Company	,,	Steaming	36	Nil	Second	Additional.
Winter, W. T.	Otaki	General	6	9	Locomotive and traction	,,
WELLINGTON NORTH DISTRICT.						
Andrews and Gray	Sanson	General	7	$8\frac{1}{2}$	Traction	Late W. J. Phillips.
Andrews, Oscar, and Co.	Pokako	Sawmill	28	11	Second	Additional.
Awahuri Co-operative Dairy Company	Kauwhata	Dairy factory	41	7 and 12	,,	Size of cylinders amended.
Boness, Thomas A.	Feilding	General	6	6 and 10	Traction	Late O. McIlroy.
Byers, H.	Shannon	Flax-mill	17	12	Second	Late W. Berquist.
Carter, F. J.	Horopito	Sawmill	32	$12\frac{1}{2}$	,,	Late Makotuku Timber Company.
Dixon, R.	Pokako	,,	20	12	,,	Late Gamman and Co.
Feilding Sash and Door Company	Ohakune	,,	20	13	,,	Size of cylinders amended.
,,	,,	,,	55	16	First	,,
Hardie, Thomas A.	Ashhurst	Dairy and bacon factory	25	9	Second	Additional.
Holt, R., and Sons	Horopito	Hauling	18	Two 9	Locomotive	,,
Jack, George	Pokako	,,	10	Two $11\frac{1}{2}$	First	Late R. Dixon.
Jeffries, Thomas	Stanway	General	6	6 and 10	Locomotive and traction	Late T. P. James.
Kendrick, Arthur	Marton	Brickworks	17	$9\frac{1}{2}$	Second	Late J. C. Meyer.
Makotuku Timber Company	Raetihi	Sawmill	16	Two 9	,,	Late Orautaha Sawmilling Company.
,,	,,	,,	30	14	,,	Late G. P. Smith.
Nathan, J., and Co.	Bunnythorpe	Dried-milk factory	95	14 and 24	First	Size of cylinders amended.
,,	,,	,,	45	14 and 24	,,	,,
,,	,,	,,	83	14 and 24	,,	Additional.
Paraeroa Sawmilling Company	Mangaeturoa	Sawmill	20	Two 10	Second	,,
Rangataua Sawmilling Company	Raetihi	,,	50	One 14, two 6	,,	Size of cylinders amended.
Simpson, W. J.	Marton	General	6	5 and 8	Traction	Late R. H. Simpson.
Smith, P. G.	Raetihi	Hauling	8	Two 7	Locomotive	Late Pukuweka Sawmilling Company.
Smith, R.	,,	Sawmill	39	12	Second	Late Tiratu Sawmilling Company.
Sollitt Bros.	,,	,,	23	$12\frac{1}{4}$	,,	Size of cylinders amended.
Syme, George (Limited)	,,	,,	40	$13\frac{1}{4}$	,,	,,
Wanganui Sash and Door Company	Hihitahi	,,	67	16	First	Late Quinn Bros.
,,	,,	Hauling	16	Two 9	Locomotive	,,
Wellington Meat Export Company (Limited)	Kakariki	Refrigerating	107	$19\frac{1}{4}$ and $26\frac{1}{2}$	First	Additional.
,,	,,	,,	107	$19\frac{1}{4}$ and $26\frac{1}{2}$	,,	,,
,,	,,	,,	107	$19\frac{1}{4}$ and $26\frac{1}{2}$	,,	,,
,,	,,	,,	107	$19\frac{1}{4}$ and $26\frac{1}{2}$	,,	,,

WESTLAND DISTRICT.

Baxter Bros.	Humphreys	Locomotive	9	Two 7	Locomotive — Late K.K. Sawmilling Company.
Blackwater North Gold-mining Company	Waiuta	Mining	20	Two 14	First — Late Prohibition Gold-mining Company.
Brownlee, J. B., and Co.	Bell Hill	Hauler	15	Two 8⅞	Second — Additional.
,,	,,	Sawmill	40	Two 16	First — ,,
,,	,,	,,	40	Two 16	,, — ,,
Greymouth Harbour Board	Greymouth	Hauling	9	Two 7	Locomotive — Late K.K. Sawmilling Company.
Hahn, G., and Sons	Ahaura	Sawmill	14	Two 10½	First — Late Midland Sawmilling Company.
Hansen, P.	Harihari	General	6	4 and 7½	Traction — Late Five-mile Beach Gold-dredging Company.
K.K. Sawmilling Company	Kumara Junction	Hauling	12	Two 7½	Locomotive — Additional.
Lake Brunner Sawmilling Company	Bell Hill	Hauler	25	10	Second — Late Frying Pan Gold-dredging Company.
Malfroy and Co.	Loop Line	Sawmill	20	7 and 11¼	,, — Late K.K. Sawmilling Company.
Ogilvie and Co. (Limited)	Marsden	,,	20	Two 10	,, — Late Marsden Sawmilling Company.
Overland Dairy Factory Company	Greymouth	Butter-factory	20	9	,, — Late Topliss Bros.
Reefton Sawmills (Limited)	Waitahu	Tractor	7	5 and 8½	Traction — Late D. McLean and Sons.
Stuart and Chapman	Where required	Sawmill	13	Two 8¾	Second — Late E. T. Malcock and Co.
Westland Gold Prospecting Company	,,	Dredging	48	9 and 15	First — Late Ahaura Gold-dredging Company.
Westland Sawmilling Company	Cameron's	Sawmill	50	9 and 14	,, — Late Midland Sawmilling Company.

Approximate Cost of Paper.—Preparation, not given; printing (650 copies, including chart), £125.

By Authority: MARCUS F. MARKS, Government Printer, Wellington.—1920.

Price 2s.]