1913.

NEW ZEALAND.

INSPECTION OF MACHINERY

(ANNUAL REPORT OF THE DEPARTMENT) FOR 1912-13.

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

The Hon. the MINISTER IN CHARGE OF THE INSPECTION OF MACHINERY DEPARTMENT to His Excellency the GOVERNOR.

MY LORD,— Inspection of Machinery Department, Wellington, 4th July, 1913.

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

I have, &c.,
F. M. B. FISHER,
Minister in Charge of the Inspection of Machinery Department.

His Excellency the Hon. Lord Liverpool,
Governor of the Dominion of New Zealand.

The CHIEF INSPECTOR OF MACHINERY to the Hon. the MINISTER IN CHARGE OF THE INSPECTION OF MACHINERY DEPARTMENT.

Inspection of Machinery Department,
SIR,— Customhouse Buildings, Wellington, 7th May, 1913.

I have the honour to submit herewith the annual report on the operations of the Inspection of Machinery Department during the twelve months which ended on the 31st March, 1913.

BOILERS INSPECTED.

A good year's work has been done in this branch of the service, and, with one or two exceptions, the whole of the districts are up to date. Drawings of some unusual types of boilers were submitted to the Department as follows: (1) A water-tube locomotive boiler with vertical water-tubes; (2) a water-tube boiler similar to the well-known boiler of the Babcock and Wilcox pattern, except that each header receives two tubes only; (3) a water-tube portable boiler; (4) a vertical cross-tube boiler with shell-crown corrugated to give additional strength; (5) a motor-car vertical tubular boiler with thin shell-plate bound with steel wire of very high tensile strength (the pressure desired for this boiler was 500 lb. per square inch); (6) drawings of other vessels to carry steam-pressure of designs of unusual construction, which were to be used for sterilizers, vulcanizers, &c.

Several firms outside of New Zealand submitted for approval standard drawings of boilers which they propose to place on the New Zealand market. Inquiries were received from abroad with reference to the scantlings of boilers and the interpretation of the standard rules of the Department. Several new boilers were not granted the working-pressure for which they were built, owing to faulty workmanship in some cases and to insufficiency of scantlings in others. The United States Consul wrote making inquiries as to boiler-inspection in New Zealand.

Some large boilers have been built in the Dominion during the year. Several circulars have been issued to the Inspectors during the year giving rules for construction in connection with boilers and

vessels carrying pressure. Altogether 587 plans have been submitted for the Department's ruling. Many of these required alterations and additions. The practice now adopted of submitting plans for approval prior to construction has done much to secure uniformity throughout the Dominion. This is recognized as a step in the right direction, as it avoids alterations after the work has been commenced.

Altogether 7,011 boilers have been inspected. Certificates have been issued for these. The fees for these inspections amount to £7,969.

Government Boilers and Machinery.

During the year 210 Government boilers and machinery were examined. Of this number, 129 were boilers, 14 lifts, 23 oil-engines, 10 gas-engines, 31 electric motors, and 3 turbines. Repairs were made to several of them, and certificates were issued for each inspection.

Defective Boilers and Fittings.

Quite a number of defects in boilers and their fittings are set out in Return No. 2. The total defects discovered number 1,239. Of this number, 33 were very dangerous. Several of these defects are due to shortness of water in the boiler. Glass-tube gauges are now generally used to ascertain the water-level in boilers, and, as much depends on them, care should be taken to provide good and reliable fittings, and to keep them in good working-order. Accidents through shortness of water in boilers would be reduced in number if the attendants, instead of merely opening the drain-cocks of water-gauges, were to test them several times daily in the following manner to ensure that both the steam and the water passages were perfectly clear: (1) Shut top cock; (2) open drain-cock (a full blow of water shows that the water-passage is clear); (3) shut bottom cock; (4) open top cock (a full blow of steam shows that the steam-passage is clear); (5) shut the drain-cock; (6) open the bottom cock (the water should not be sluggish in returning to the glass). These operations involve a certain amount of trouble, but they ensure that the glasses will indicate the water-level correctly, and also that the cocks are workable should a glass break.

To prevent accidents from bursting glasses they should be of good quality, the fittings should be in line, and each glass should have a suitable protector. The renewal of glasses every six months, instead of waiting till they break, is very good practice.

New Boilers.

During the year 587 new boilers have been registered and added to the books of the Department. Their total horse-power amounts to 6,649. Of the total number, 356 were built in the Dominion and 231 imported.

The following table shows the number and horse-power of the new boilers and the districts to which they have gone:—

District.	Local.		Imported.		Total.	
	Number.	Horse-power.	Number.	Horse-power.	Number.	Horse-power.
Auckland	41	745	37	1,546½	78	2,291½
Auckland South	42	607	30	248	72	855
Hawke's Bay	31	286	13	252	44	538
Taranaki	37	389½	25	322¼	62	711¾
Wellington North	27	263	8	32	35	295
Wellington	38	260	29	62½	67	322½
Marlborough	3	11½	6	26	9	37½
Nelson North	7	94½	3	12	10	106½
Nelson South	2	73	4	12½	6	85½
Westland	19	218	5	209½	24	427½
Canterbury	45	164½	23	177½	68	342
Canterbury South	2	6½	8	52	10	58½
Otago	36	163½	21	77¼	57	240¾
Southland	26	155½	19	181½	45	337
Totals	356	3,437½	231	3,211½	587	6,649

Gas-, Water-, and Electric-driven Machinery.—Lifts and Machinery Inspections.

The total number of inspections made during the year was 8,185. Of this number, 1,531 were gas-engines, 2,794 oil-engines, 3,802 lifts and motors (which include water and electric motors), and 58 steam machinery.

Fencing of Machinery.

The guarding of machinery in motion for the protection of those who have to work at or near it has been attended to where required. Attention has been necessary, particularly in the case of oil-engines which have been installed at many places during the year, and which are usually in the hands of those unused to machinery in motion.

Return No. 4 gives full particulars of the guarding done.

Examination of Land Engineers and Engine-drivers.

Examinations have been held during the year at—Alexandra South,* Auckland,* Blenheim, Christchurch,* Collingwood, Cromwell,* Dunedin,* Eltham, Gisborne,* Greymouth,* Hamilton,* Hawera, Invercargill,* Karamea, Mangarakau, Masterton, Napier,*, Nelson,* Pahiatua, Palmerston North,*, Timaru,* Waihi, Waitara, Wanganui,* Waverley, Wellington,* Westport,* and Whangarei.

The examinations held were for extra first-class engineers, first-class engine-drivers, second-class engine-drivers, winding-engine drivers (for steam, air, and water), and locomotive and traction engine drivers. The total number of those who sat for these examinations was 653. Of this number, 448 were successful in passing, and 205 failed. Returns Nos. 7 to 13 give full particulars of those who passed these examinations, together with the different grades and classes of examination.

Reciprocal certificates were issued to applicants who held certificates from Commonwealth States as follows: New South Wales, 2; Queensland, 3; Tasmania, 3; Victoria, 5: total, 13.

Regulations for the examination of applicants who wish to be examined for electric-winding certificates were gazetted on the 27th March, 1913, and examinations will take place shortly. Electricity as a motive power is being introduced at some of the mines, and will replace steam. Provision has been made in the regulations to enable those possessing steam-winding certificates to be examined without further service.

Examination of Electric-tram Drivers.

During the year 105 candidates sat for this examination, and of this number 88 passed and 17 failed. The Department has been indebted to the different Corporations and tramway officials for placing cars at the disposal of the Examiners to test the applicants' practical knowledge in car-manipulation. Great difficulty has been experienced in getting sufficient certificated men to fill the vacant posts at Invercargill during the year, and this will always be the case unless the qualifying service is altered to embrace service outside the Dominion. One prosecution took place during the year, when an uncertificated motorman had been employed to drive cars.

Returns Nos. 14 and 15 give full particulars of those to whom certificates have been issued during the year.

Board of Examiners.

The Board of Examiners met for the conduct of business on ten occasions. A large amount of new business was dealt with, notably in connection with the issue of motormen's certificates for electric tramways. Mr. C. R. Vickerman, Superintending Engineer of the Public Works Department, who had been a member of the Board since the 11th July, 1907, retired from its membership during the year, when he severed his connection with the Government. During the whole of the time he was connected with the Board he was an honoured member of it, and his judgment in all matters proved to be sound and of great service. I trust that he will enjoy his retirement for many years.

Accidents.

No boiler explosion has taken place during the year in the Dominion, and there has been no accident or injury to any one working at or with boilers. The Department is proud of this result, and I trust this record will be maintained.

With machinery in motion, however, I have to record a number of accidents. Several of these proved fatal, and, as is usual, quite a number occurred to those working with woodworking machinery. There were several accidents with lifts. This class of machinery is installed in nearly all the lofty buildings recently erected in the large centres. A lift is a most useful and handy appliance for goods and for passengers, but its control should be in the hands only of those who thoroughly understand its use. The fencing and guarding of the cages of lifts, and the wells of lifts at staircases and landings in buildings, are inspected by the Department's Inspectors so as to eliminate the danger to inexperienced persons who frequent buildings containing lifts. The safety-appliance gears are tried from time to time to test their readiness to act should the ropes break that support the cage. So far very few accidents have occurred, but the owner cannot be too strongly impressed with the need to see that the person placed in charge of the lift should frequently examine the cage and its connections and immediately report any defect that he thinks may exist to the owner or to the Department.

Returns Nos. 5 and 6 give full particulars of accidents reported to the Department.

Postal and Police Departments.

The Department is very much indebted to the officers both of the Postal and Police Departments for valuable assistance rendered during the year. The inspection fees have been collected by the Postal officials, and returns of same sent to this Department. This has enabled the Department to deal with defaulters. The officers of the Police Department have assisted in a great many prosecutions, not only in case of default in lifting certificates, but also in cases where owners have employed engine-drivers without the necessary certificates, and against engine-drivers themselves who have accepted positions without holding the necessary certificates. Action has also been taken in cases where sellers and purchasers of machinery and boilers subject to inspection have failed to notify the Department of these transactions.

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

Examination of Marine Engineers.

Examinations for certificates of competency during the year have been conducted at Auckland,* Awanui, Christchurch,* Dunedin,* Gisborne, Greymouth,* Hamilton,* Invercargill,* Kohukohu,* Napier,* Nelson,* New Plymouth, Oponui, Palmerston North,* Russell, Tauranga, Timaru, Wanganui,* Waitara, Wellington,* Westport,* and Whitianga.

The candidates who sat for examination during the year total 349. Of this number, 292 were successful and 57 failed. The different grades for examination were: First-class marine engineer, second-class marine engineer, third-class marine engineer, river engineer, marine engine-driver, first-class engineer of auxiliary sea-going powered vessels, second-class engineer of auxiliary sea-going powered vessels, and restricted-limits engineer of auxiliary-powered vessels.

New regulations are under consideration at the present time which will bring the examinations into line with the British Board of Trade's recently issued regulations, and will embrace many new items.

The fees for these examinations amount to £287 10s.

Return No. 16 gives the names of the successful candidates, the various grades for which they passed, the total number of applicants, fees payable, and the number of candidates who failed to pass such examinations.

Explosives.

At the Port of Wellington 212 permits were granted for the carriage of explosives on passenger and cargo vessels.

Annual Survey of Steamships and Auxiliary-powered Vessels.

This department of our work has now grown to large dimensions, and requires the undivided attention of several of the Inspectors and Surveyors; and, as this class of work is considered very onerous and important, the senior Surveyors are principally intrusted with it. The oil-driven launches plying for hire and subject to survey are very numerous in most of the principal harbours and rivers throughout New Zealand, and it is difficult in many cases to get them on the beach for hull examination. The necessity for the periodical examination of the hulls of these launches has been apparent at many of these surveys, and owners should appreciate the practical hints given at such times, which may, and often do, save them a great deal of delay and expense later on. The equipment and the special appliances for dealing with fire have received close attention. It is well known that the oil used for generating-power purposes in these launches is very inflammable, and the great point is to be able to promptly quench it in its incipient stage. A chemical fire-extinguisher which acts quickly has been placed on board each vessel surveyed, and in the larger boats two of them have been insisted on. A great many tests of suitable appliances for this purpose have been made by my officers, and a complete list of those passed is available. The powder type of extinguisher is not passed as suitable.

The survey of steamships is practically completed and up to date, and in many cases, especially in connection with the surveys of the older vessels, a great many defects were made good. To cope with the repairs of ships, one company in New Zealand has erected adjacent to their wharves complete and up-to-date workshops fitted with good lifting-appliances and replete with modern machinery. Such conveniences make for efficiency and quick despatch in the carrying-out of repairs.

Several new vessels have been completed during the year, and amongst them a new Government vessel for service on Lake Wakatipu. A photograph of this vessel is attached to the report. Both the hull and the machinery were built in the Dominion, and under the supervision of this Department's Inspectors. At the trial she proved herself capable of attaining the desired speed on a certain draft, and has run successfully ever since. Plans and specifications of each new vessel built have been submitted and passed before the work of building was begun. For this service fees are charged as provided for by statute.

Sixty-eight of the vessels surveyed were fitted with new propeller-shafts, 15 had new propellers fitted, 9 had new blades fitted to their propellers, 1 had a new boss to the propeller, 15 had new engines fitted, 3 had new cylinders fitted, 3 had new main boilers installed, and 1 had a new donkey boiler installed.

The number of surveys made during the year total 734. The fees for these surveys amounted to £3,808.

A great many marine excursions on special occasions were made all over the Dominion, and without serious mishap. The detailed fittings and equipments were supervised in each case by the departmental officers before permission was granted.

Special care has been bestowed on life-saving appliances during the year, and an amendment of the regulations to bring them into line with new regulations issued by the British Board of Trade is contemplated.

Return No. 17 gives the total number of steamers and of auxiliary-powered vessels surveyed by the Surveyors of this Department during the year. It also gives the names and registered tonnage of each vessel, the nominal horse-power and indicated horse-power of steam-vessels, the brake horse-power of auxiliary-powered vessels, and the nature of machinery and propeller.

The following is a brief description of the work involved in some of the most important surveys made during the year:—

S.s. "*Akaroa.*"—The following repairs to this vessel were found necessary, and were effected at the annual survey: Hull—A new shoe was riveted on to the bar keel under propeller aperture, and

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

a new small bracket was riveted on to the end of the keel for carrying the bottom pintle of the rudder. The rudder was taken out for examination of the head in the trunk, and two new iron hinge-bands were riveted on to the rudder-post for the rudder-pintles. Two new frames, reverse frames, and floor-plates were put in bottom of hold. Two new angle-irons were riveted to the ends of the under deck-frames on the port and starboard sides of hatch, and new deck-planks were fitted round the hatch and also over the boiler. The main boiler was thoroughly examined, and, owing to wasting on the outside of the boiler-bottom, the working-pressure was reduced 10 lb. The tail-shaft was drawn for examination, and the engines received a general overhaul.

S.s. "*Albatross.*"—In order to reduce the vibration of this vessel, several girder and T plates have been fitted in the fore and after holds. Two new planks have been fitted in the keel at fore and after ends. The main steam-pipes were annealed and tested by hydraulic pressure, and both tail-shafts were drawn for examination. Two new deckhouses with open ends have been erected on the top deck as shelter for passengers, and the top deck amidships has been sheathed with 6 in. by 1 in. planking.

Dredge "*Canterbury.*"—This dredge was built in Renfrew, Scotland, and steamed out to Lyttelton, at which port she is engaged in dredging. She is of the patent twin-screw trailing suction cutter hopper type of dredge, and has suction and self-discharging pumps capable of raising and discharging 2,000 tons of material per hour. The leading dimensions of the vessel are: Gross tonnage, 1,113; register tonnage, 521; length, 204·2 ft.; breadth, 38·15 ft.; depth, 16·8 ft. There are four sets of compound engines. Two sets have cylinders each 13 in. and 26 in. diameter by 15 in. stroke, and are arranged to work on one line of shafting when the vessel is moving from place to place, but when the vessel is dredging they are disconnected, one set of engines propelling the dredge and one set driving the pumps. Steam is supplied at a working-pressure of 130 lb. per square inch by two marine multitubular boilers 13 ft. diameter and 10 ft. long.

S.s. "*Chelmsford.*"—A new rudder-trunk and both bands for the rudder have been fitted. A new floor has been put in ladies' cabin. Six 6 in. by 3 in. channel iron frames have been put across hold and extended up about 5 ft. on each side of keelson, and spaced 4 ft. to 4 ft. 6 in., and bolted to sister keelsons. The boilers, machinery, and equipments were carefully surveyed. The whole length of the main steam-pipe was disconnected and tested by hydraulic pressure.

P.s. "*Clyde.*"—The different compartments of the hull of this paddle steamer received repairs as follows: No. 1 compartment—Several of the floors and the bulkhead were repaired, and two floors were cut out and straightened. No. 2—Gusset-plates were fitted on two floors to the frames. No. 3—Seven floors were cut out, straightened, and reriveted; diagonal and upright bracings were refastened. No. 4—Seven floors were cut out and straightened, a steel plate 10 ft. by 10 in. by $\frac{3}{16}$ in. was fitted on bottom under derrick. No. 5—Bulkhead was repaired and the defective rivets were renewed. Engine-room—A patch was put on the bottom, and defective floors and the bracings were re-riveted. All the repaired floors were strengthened with $\frac{1}{4}$ in. steel plates and 2 in. angle reverse bars. 180 ft. of 7 in. by 3 in. ironbark belting was fitted between 2 in. angles. A steel shoe 2 ft. 5 in. by $\frac{3}{8}$ in. was fitted on the keel near the rudder.

S.s. "*Corinna.*"—Extensive repairs were made to this vessel's main boilers, and a new donkey-boiler was placed on board. The principal repairs to the main boiler, which had to be turned round for the purpose, were: Two large doubling patches fitted on the bottom of the shell, and two patches fitted on the bottom of the boiler-fronts and welded to old parts; four compensating-rings fitted at bottom doors over the welded parts; two patches fitted on the front ends of the centre furnaces at bottom; a new bottom fitted in centre of combustion-chambers; three corner patches fitted at saddles of centre furnaces; all the cracks on the landings welded, and eight leaky rivets renewed. The main and auxiliary engines had a general overhaul, and the main pipes were tested by hydraulic pressure. The donkey-boiler, which is of the vertical cross-tube type and is 5 ft. 6 in. diameter and 11 ft. 4 in. high, was made in New Zealand from steel plates of approved brand. The plan and specification of the boiler was submitted to the Department, and when some additional strength to the staying was made to the firebox and shell crowns it was approved for the required working-pressure. A Surveyor of Ships supervised the construction of the boiler and witnessed the test by hydraulic pressure to double the working steam-pressure.

O.E.V. "*Dawn.*"—This vessel was placed on a slip, and a new bottom put in the hull. All worm-eaten planks were replaced by new ones, and new ceilings were fitted to hold. The engines were taken out of the vessel, and before being replaced they were thoroughly overhauled.

S.s. "*Earnslaw.*"—This steel twin-screw steamer was built by a Dunedin engineering firm for the New Zealand Government. She is engaged carrying passengers and cargo on Lake Wakatipu. She has a promenade deck running the full length of hull, and accommodation is provided for 1,072 passengers and about 40 tons of cargo. The plans of the hull and boilers were submitted to the Department before their construction was commenced, and after some alterations had been made were finally approved. The vessel's hull and boilers have scantlings of the highest standard. The principal dimensions of the vessel are: Length, 160 ft.; beam, 24 ft.; depth, 9 ft. There are two sets of triple-expansion jet condensing-engines with cylinders 12½ in., 20½ in., and 34 in. diameter by 18 in. stroke, indicating about 500 horse-power for each engine. Two locomotive type of boilers have been installed to work at a pressure of 180 lb. per square inch. Superheater and forced draught are fitted to the boilers. The barrel of each boiler is 6 ft. diameter and 7 ft. 8 in. long, and the heating-surface of each boiler is 1,420 square feet. On the trial trip the vessel attained a maximum speed of 16·36 knots. This vessel was first erected in Dunedin, and re-erected at Kingston before being launched there. The propelling machinery and all other machinery details were made in Dunedin. The vessel during the whole period of construction was closely supervised by an Inspector of Machinery, in his capacity as a Surveyor of Ships.

S.s. "*Himitangi.*"—At the annual survey of this vessel the following repairs to the hull, boilers, machinery, and equipments were carried out: Hull—A patch was fitted on the top end of the hawse-pipe, a new end was welded on the rudder-shank, new plates and pintles were fitted to rudder, the stern-post was straightened and welded where cracked by the oxy-acetylene process; two straps were fitted over the after end of the garboard-plates where they are riveted to the stern-post; one new shoe was fitted under the keel aft; 510 new rivets were put in the bottom of the hull, and the stern-bush was relined with lignum-vitæ. Main boilers—All the plain tubes and one stay-tube were renewed. A small patch was fitted round the stay-hole in the back of the starboard combustion-chamber, and one new screwed stay was fitted. The donkey-boiler shell was patched under the safety-valve with a $\frac{3}{8}$ in. plate 2 ft. 4 in. by 2 ft. 6 in. Machinery—New M.P. piston-rings were fitted. The M.P. slide-valve was planed up and fitted to the cylinder-face. The thrust-shaft bearings and couplings were trued up, and new feed and bilge-pump plungers and new circulating-pump rod were fitted. The steering-gear was overhauled, and the quadrant was straightened, rebored, and a new angle-iron fitted. The propeller-shaft was examined. The windlass was repaired, and new blocks were put in cable-compressors. Two new bower anchors, one kedge-anchor, and 105 fathoms of new cable-chain were placed on board. Equipments—New fore and main rigging and back stays, new main topmast, and main stays were fitted. New davits for the surf-boat and a new lifeboat and boat-falls were supplied.

S.s. "*Kestrel.*"—Between the tops of the forward and after deckhouses on the upper deck of this vessel a new shelter-deck has been fitted. Both tail-shafts were drawn for survey, and one new stern-bush at stern end was fitted. One of the propeller-blades was renewed. A new crank-pin was shrunk in H.P. crank, and the crank-shaft was turned up. The main steam-pipes were annealed and tested by hydraulic pressure. Several rivets were renewed in the combustion-chamber of the main boiler.

S.s. "*Kanieri.*"—Extensive repairs were made to the hull of this vessel. On the starboard side one new plate, 11 ft. 9 in. by 3 ft. 3 in. by $\frac{1}{4}$ in., was put in, and a 3 ft. 3 in. by 1 ft. by $\frac{1}{4}$ in. patch put on the bow just under the water-line. On the port side new plates of the following dimensions were fitted: two each 6 ft. by 3 ft. 3 in., one 4 ft. by 2 ft. 9 in., one strake 19 ft. 4 in. by 3 ft. 3in., all $\frac{1}{4}$ in. thick. To the keel 18 ft. of new plate was fitted. Some ordinary frames and reverse frames in the holds and the top half of the collision bulkhead were renewed. The thickness of the hull-plates was tested by drilling holes in them. The tail-shaft was drawn for inspection during the year, and a new stern-bush was fitted.

S.s. "*Karamu.*"—This is a steel, screw, cargo-steamer, surveyed in New Zealand for the first time during the year. The registered particulars are: Length, 205 ft.; breadth, 32·1 ft.; depth, 15·7 ft.; gross tonnage, 934; register tonnage, 452. The vessel has a raised quarter-deck, bridge-deck, long well forward, and topgallant forecastle. Accommodation for officers is amidships, under the bridge. The vessel and her machinery were built in Scotland. The propelling-machinery consists of one set of triple-expansion surface condensing engines, with cylinders 17 in., 27 in., and 45 in. diameter by 33 in. stroke, supplied with steam from two boilers 13 ft. 9 in. diameter and 10 ft. 6 in. long, at a pressure of 180 lb. per square inch.

S.s. "*Kotiti.*"—When this vessel was docked for survey the keelson under the boiler was strengthened with heavy channel steel bars about 15 ft. long, and the floors under the boiler were backed up by new three-quarter-length floors, bolted together and through bottom of ship. New deck-planking was fitted in the captain's cabin, the port alleyway, and the fore deck. A new rudder-stock was fitted. In the boiler a short length at the back end of the furnace was cut out, and a new length with one corrugated ring was fitted. Several new tubes were fitted, and the boiler and main steam-pipes were tested by hydraulic pressure. A new lignum-vitæ stern-bush was made and fitted, and the spare tail-shaft was shipped.

S.s. "*Kotuku.*"—The principal repairs at the annual survey were to the tanks and to the floors under boiler-seats. All the tanks were tested, and at No. 3 tank, on the starboard side, the floors under boiler-seats were each sheathed with two plates 2 ft. 3 in. by 1 ft. 6 in. by $\frac{3}{8}$ in., and strengthened with two angle-irons 2 ft. 2 in. long. Four floors were sheathed with plates each 2 ft. 3 in. by 1 ft. 5 in. by $\frac{5}{16}$ in. On the port side the floors under boiler-seats were each sheathed with two plates 2 ft. 3 in. by 1 ft. 5 in. by $\frac{3}{8}$ in., and strengthened with two angles. This vessel was, shortly after survey, wrecked at the north tiphead, Greymouth.

S.s. "*Mahua.*"—This vessel is best described by her original name, "80-ton floating crane." She was built in England, taken adrift and re-erected in Auckland. The crane can lift 80 tons weight at a radius of 62 ft. from the centre of crane-seating, and provision is made for lifting weights up to 10 tons at a radius of 74 ft. 6 in. with a separate set of hoisting-gear. For propelling purposes the crane has two engines of the vertical compound surface condensing type, with cylinders 11½ in. and 22½ in. diameters by 16 in. stroke. Steam is supplied at a pressure of 130 lb. per square inch from two multitubular marine boilers 14 ft. in diameter and 10 ft. long. The crane is engaged in work connected with the Auckland Harbour-works.

S.s. "*Maitai.*"—Several test holes were drilled in the hull-plating of this vessel at various parts. Several reverse frames were renewed in the bunkers and elsewhere. Several new ordinary tubes were fitted to the after starboard boiler. The dog-stays in the starboard furnace combustion-chamber of the main after-port boiler and in the donkey-boiler were refitted. The bottom half of the after tube-plate of the main condenser was patched, and several of the tubes were renewed. The condenser was afterwards tested. All the holding-down bolts of the main engine bed-plate were tightened, and a number of them renewed.

O.e.v. "*May Howard.*"—This is a wooden vessel, and she received a thorough overhaul at the annual survey. Twelve of the top timbers on the port side and one top plank amidships on the port side were renewed. All the sheet copper was stripped off, and the hull and the bottom were refastened, caulked, felted, and coppered. Six strakes of lining on the port side and one on the star-

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

S.s. "*Moana.*"—On the starboard side of the hull a patch 15 in. by 12 in. by $\frac{1}{2}$ in. was fitted in the way of the engine-room bilges. In the bilges under port boiler, four floor-plates and one intercostal plate were sheathed. Two new $\frac{1}{2}$ in. angles were fitted to keelson, one 4 ft. by 4 in. by 4 in. and one 6 ft. 5 in. by $3\frac{1}{2}$ in. by 3 in. Two $3\frac{1}{2}$ in. by $3\frac{1}{2}$ in. by $\frac{1}{2}$ in. angles, 4 ft. long, were fitted under one of the boiler-seats, and a patch 15 in. by 12 in. by $\frac{3}{8}$ in. over the margin-plate on the forward starboard side of No. 1 tank. All tanks were tested to the deck-level. New piston-rods were fitted to H.P. and M.P. cylinders, and a number of tubes in the condenser were renewed. New wood was fitted to the stern-bush, a new feather was fitted into the tail-shaft, and the propeller-boss was refitted. All the plain tubes and seventy-two defective combustion-chamber stays were renewed in the main boilers, and the four centre furnaces were patched on the bottoms. New guys were fitted to the funnel, and the sides of the crane-girder of No. 1 cargo gear were renewed.

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

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

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

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

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

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

Hopper "Sumner."—The hull of this hopper was patched on the starboard side under counter with a ¼ in. steel plate 36 in. by 24 in. The angle-irons were renewed on two floor-plates under stoke-hold plating. A new stern-bush was fitted into stern-tube. The old main boiler was removed and replaced by a spare boiler taken out of the hopper "Heathcote," which had been repaired as follows: Two new shell-plates, 8 ft. by 4 ft. by ½ in. steel, were fitted on the bottom; two new gusset-stays were fitted under combustion-chambers, 1 ft. 6 in. by 1 ft. 6 in. by ½ in. steel, and a new plate, 7 ft. 2 in. by 2 ft. by ½ in. steel, was fitted on back of combustion-chamber. The bottom and portion of each side of combustion-chamber were renewed, and also several screwed stays, five girder-stays, and eighteen longitudinal stays. All plain and stay tubes were renewed. Several other minor repairs were effected, and the boiler tested by hydraulic pressure.

S.s. "Talune."—The following are the principal repairs to the hull of this steamer. The thwart-ship gusset-stay in the after peak was re-riveted at both ends to the ship's framing. Nearly the whole of the forward stokehold bulkhead was renewed with riveted plates, varying from 1 ft. to 4 ft. from ballast-tank upwards, from side to side of ship right down into the side wells, to make the bulkhead watertight. Two new efficient planed watertight doors have been fitted and jointed to this bulkhead, and have vertical shafts to the main deck where they can be operated. Nearly the whole of the plating in the bottom of the starboard 'tween-deck side bunker was renewed. Most of the vertical stiffening angle-irons in upper part of forward and after stokehold casing were re-riveted. Large riveted patches were put on the after-hold side of engine-room bulkhead and on the bulkhead next after-peak. Several manhole-doors of the main and donkey boilers were slack in the holes, and these received attention. The auxiliary steam-pipes were tested by hydraulic pressure, and the engines received a general overhaul.

S.s. "Te Anau."—This vessel was laid up for some time, and important repairs have been made, chiefly to the hull at stokehold-tank. The top of this tank under the boilers was cut off, and sixteen new floor-plates were fitted under the boilers with 5 in. by 3 in. by ½ in. double angles, and the fore and aft girders under the centre of each boiler were brought up to their original strength. Two tie-plates, 24 ft. by 1 ft. 2 in. by ½ in., were fitted under the boiler-seats, of which four have been renewed and two repaired. All the scale was chipped off the tank, which has been cement-washed and filled with concrete as ballast instead of water. In the bunkers several new plates were fitted and others were sheathed, patched, and stiffened as required. New bottom manhole-doors were fitted to the starboard and port forward boilers. Some patches were put on the plates of the combustion-chambers. Three lengths of the main steam-pipe were found defective. These have now been repaired, and all the pipes have been tested by hydraulic pressure. The auxiliary steam-pipes were also tested. A new kedge-anchor was placed on board.

O.e.v. "Torea."—This vessel, constructed as an auxiliary scow, was launched from the yard of an Auckland shipbuilder on the 18th June, 1912. The principal dimensions of the vessel are: Gross tonnage, 50; register tonnage, 24; length, 69 ft.; breadth, 19 ft. 7 in.; depth, 5 ft. 4 in. The propelling machinery consists of two sets of four-cylinder oil-engines each of 30 B.H.P. The drawings and specifications for the vessel were submitted to the Department for approval, and a Surveyor of Ships supervised the construction of the vessel. The hull is built principally of kauri, and has two skins of diagonal planking.

S.s. "Tui."—The main engines of this vessel have been converted into tandem compound by replacing the old 8 in. cylinder with two new cylinders 6½ in. and 12 in. diameter. The only parts of the old engine which now remain are the guides, crank-shaft, and bed-plate. The main steam-pipes were tested by hydraulic pressure. A new safety-valve and spring were fitted to the main boiler. The whole of the deck was renewed with 1⅛ in. kauri.

S.s. "Wairoa," of Nelson.—This vessel was surveyed in May, 1912, and owing to the bad condition of the boiler, the pressure on which had to be reduced, a three months' certificate only was granted. When this certificate expired the vessel was laid up, and new engines and boiler were fitted. The engines were made in New Zealand, and have cylinders 10 in. and 20 in. diameter, with a stroke of 12 in. The boiler was made in Glasgow, and is 6 ft. in diameter and 7 ft. 6 in. in length. The hull has been refastened in places with copper bolts, and covered with Muntz-metal sheathing. A new hardwood stern-post and new rolling-chocks were fitted, and a portion of the deck was renewed. The tail-shaft was examined, and both the main and auxiliary steam-pipes were tested by hydraulic pressure.

S.s. "Wairua."—This twin-screw wooden steamer was launched at Auckland on the 10th February, 1913. Her registered dimensions are: Length, 120·7 ft.; breadth, 23 ft.; depth, 12·7 ft. Her gross tonnage is 285·9, and the register tonnage 175·4. The propelling-machinery consists of two sets of triple-expansion surface condensing engines with cylinders 8 in., 13 in., and 21 in. diameter by 16 in. stroke, supplied with steam at 180 lb. per square inch by a multitubular marine boiler 12 ft. in diameter and 10 ft. in length. The engines and boiler were made in Glasgow. The plans for the vessel were submitted and approved by the Department. The vessel is engaged carrying passengers in Kaipara Harbour.

S.s. "Waitangi."—During the year the following repairs to the hull and propelling machinery were made. Both propeller-shafts were renewed, the stern tubes and brackets were rebushed, and the palm of the port bracket at the bottom was refastened. The main steam-pipes were tested by hydraulic pressure. On the starboard side of hull two new plates were put in, and on the bottom three sheathing-plates were fitted. The plating of the bunkers has been renewed, and several defective reverse frames in various parts have been strengthened.

S.s. "Waitara."—This vessel, which has been laid up for some time, received a thorough overhaul. 16 ft. of the after end of the keel was renewed with 9 in. by 5 in. ironbark. On both sides aft new garboard-strakes were fitted with 20 ft. by 9 in. by 2 in. kauri. Six new planks were fitted on the starboard side and four on the port side. The stern was refastened, and 30 ft. of new covering-board

put on the starboard side aft and round the stern. Several top timbers on each side and two angle-iron frames aft were renewed. One V-shaped angle frame, with gusset-plate, was fitted aft close to the sternpost. Other renewals were: Two horn timbers, 7 ft. by 6 in. by 6 in., of kauri; rudder-trunk; stringer on port side, 25 ft. by 9 in. by 2 in.; ledge-piece on port side aft, 20 ft. by 6 in. by 2 in.; and ceiling in hold. Three tie-bolts were fitted from side to side of the vessel. New accommodation was provided for the crew, and a new anchor and 60 fathoms of cable were shipped. The engines were converted from simple non-condensing into compound tandem condensing by adding two H.P. cylinders. New air, circulating, feed, and bilge pumps and a new condenser were placed on board.

S.s. "*Warrimoo.*"—Extensive repairs have been made to the hull and boilers of this passenger-steamer. 287 ordinary and nineteen stay-tubes, and forty-seven screwed stays, were renewed in the forward port boiler; 278 ordinary and twenty-seven stay-tubes, and twenty-four screwed stays, were renewed in the forward starboard boiler; 198 ordinary tubes, one stay-tube, and fifty-nine screwed stays were renewed in the after starboard boiler; and 198 ordinary and six stay-tubes, and fifty screwed stays, were renewed in the after port boiler. Part of the back plating was renewed in the combustion-chambers of the centre furnaces of the forward port and after starboard and port boilers. In the donkey-boiler two new tubes were fitted and test holes drilled in the starboard combustion-chamber. A new furnace was fitted and the uptake was stiffened. On the boat-deck, two tie-plates were fitted between the furnace and engine-room casing, each 20 ft. by 12 in. by $\frac{3}{8}$ in., with two angles, each 21 ft. by $3\frac{1}{2}$ in. by $3\frac{1}{2}$ in. by $\frac{3}{8}$ in., and two straps, each 8 ft. by 3 in. by $1\frac{1}{2}$ in., half round beading. Two tie-plates were also fitted between the funnel-casing and forward stokehold-casing on boat and upper decks. Several bunker bulkheads, after peak bulkhead, and tank-top under boilers were sheathed. Some of the holding-down bolts in main engine bed-plate were renewed. A new propeller-boss was fitted to the tail-shaft, which was drawn for examination. The auxiliary steam-pipes, which, owing to being of brazed copper, were due for testing, were tested by hydraulic pressure.

Surveys of Ships for Seaworthiness.

As soon as the notice of a mishap affecting the seaworthiness of a vessel had been made known to the local Surveyor of Ships, steps were taken to investigate its nature. In many cases several days were thus occupied before the repairs were completed and the vessel declared seaworthy. The causes which necessitated these surveys include collisions between vessels and with wharves, snags, &c., strandings, defects in hull through bad weather, defective steam-pipes and fittings, leaky combustion-chambers in main boilers, accidents in engine-room, breaking of shafting of propelling machinery, loss of propeller-blades, and fires in holds.

The number of seaworthiness surveys made total seventy-four, and the fees amounted to £170.

Return No. 19 gives a full description of each survey made.

Government Steamers.

The Government steamers surveyed during the year numbered ten, as follows: S.s. "Amokura," s.s. "Antrim," s.s. "Ben Lomond," s.s. "Earnslaw," s.s. "Hinemoa," s.s. "Janie Seddon," s.s. "Lady Roberts," s.s. "Mountaineer," s.s. "Tutanekai," and o.e.v. Defence launch W. A brief outline of the repairs that were found necessary is as follows:—

S.s. "*Amokura.*"—The upper half of the sides and the top of the boiler and galley casings were renewed. The galley was lengthened 2 ft. on the after end. A new boat-deck, 34 ft. long, was attached to each side of the boiler-casing, and supported on beams and stanchions; chocks fitted for the boats to sit in; the boat-davits lengthened, and supporting-brackets fitted. New pins were fitted in the screw gear of the after boat-davits. The old gun-tables on each side of the vessel were removed, the gun sponson bulwarks and rails repaired, and ironbark belting fitted on the bottom edge of both sponsons. The main and other decks were caulked. A number of the stanchions about the decks were renewed and repaired, the fyfe rails repaired, and a new sanitary tank fitted to boys' latrine. Both boilers were retubed. A number of minor repairs to machinery were carried out.

S.s. "*Hinemoa.*"—A small patch was made and fitted on bottom of starboard boiler, several new bolts were fitted in the old patch, the boilers were caulked where necessary, and new skirting-plates fitted to both boilers. New hydrokineter valves for both boilers were provided, and the feed and bilge pump plungers turned up and rebushed. The L.P. crank-pin brasses were relined, the steering-gear engine overhauled, and new steering-gear chains sheathing-plate fitted on the bottom of the engine-room bulkhead. 30 ft. of the ship's railing was renewed.

S.s. "*Tutanekai.*"—Both propeller-shafts were drawn for examination. A sheathing-plate was fitted on the intercostal in the after-peak tank.

Defence launch W.—New cylinders were fitted to the engines.

"*Ben Lomond.*"—A new boat was placed on board.

"*Lady Roberts.*"—The principal repairs to this vessel were those made to the main boiler. 136 rivets were drilled out of the combustion-chambers round the bottoms and also on the back ends of furnaces. The rivet-holes have been countersunk a little deeper, and new rivets put in. Several rivet-holes which were found not to be fair were rymered, and special-sized lawmoor iron rivets were fitted into them. Two pieces of cracked plate were cut out of the flanging at the camber of the back end of the starboard furnace, and riveted and caulked patches fitted. Two cracks in the flanging on the combustion-chamber back-end plate, near the bottom, were studded and caulked over. After completion of the repairs, the boiler was tested by hydraulic pressure to about one and a half times the working steam-pressure. Both tail-shafts were drawn, and two new white-metal stern bushes fitted. Four slide-valve rods were turned up and four new turned-steel collars were fitted to the valve-rods for the bottom ends of slide-valves.

ADDITIONAL STEAMERS AND AUXILIARY-POWERED VESSELS SURVEYED FOR THE FIRST TIME.

During the past year 174 steamships and vessels fitted with oil-engines as a motive power have been surveyed for the first time. The following is a list of them: Aio, Alice, All Black, Alma, Alva, Amy, Ataru, Aurere, Awahou,* Belle, Betsy Beard, Betty, Campbell, Clematis, Comet, Conella, Coo-ee, Cygnet, Dauntless, Doak, Dot, Dreadnought, Earnslaw,* Eclipse, Eleanora, Emerald, Empress, Eureka, Farina, Ferry, Flossie, Geisha, Gem, Green Duck, Harriet, Heather (Nelson), Heather (Nelson), Hinewai, Huia, Ida, Ira, Irene, Iris, Isabel (Stewart Island), Isabel (Te Kopuru), Ivy Leaf, Kairaki, Karamu,* Karewa, Karori,* Kate, Katoa,* Kauri,* Kelvin, Kereru, Kinohaku, Kokere, Korari, Kotere, Lady Moire, Lillian, Lily, Lizzie 222, Mahino, Mahua,* Mahuroto, Mako, Manuka*, Manukotuku, Manuwai, Maori, Marama, Mareno, Marakopa, Maroro, Mavis (Onehunga), Mavis (Stewart Island), May, Mermaid (Auckland), Mermaid (Kohukohu), Mikado, Minoru, Mirree, Mizpah, Moa (Taieri Mouth), Moa (Wanganui), Moana, Moerangi, Mosca, Muriel, Myna,* Naumai, Neptune, Niagara, Nick, Nikau, Nita, Nui, Olive, Onoke, Oparu, Orakei, Oriri, Otara, Panirau, Pearl,* Peerless, Pelorus, Phœbe, Phyllis,* Pihinga, Pioneer, Pukeore, Queen, Queen of Beauty, Rangi, Rangimahora, Rawhiti, Regal, Regal II, Reliance* (Picton), Reliance (Raglan), Reliance (Young's Point), Ripple, Rodesian, Roko, Rona, Ronaku, Sarah, Special, Speed, Speedy, Stanley, St. Mary, Swan, Tahuna, Taihoa, Tainui, Takitimo, Tawera, Te Maika, Tepua, Te Puke Lass, Tetio, Thelma, Thistle, Thorneycroft, Tikirau, Togo, Torea, Toroa, Tot, Tuatea, Tui (Kohukohu), Tui (Rawene), Tui (Taupo), Turamakina, Vanora, Vectus, Vesper, Viking, Waikare, Waipuna, Waireka, Wairoa, Wairua,* Waitemata, Wakanui, Waka-tere, Wharepapa, Whisper,* Zior, Zoe, Zomar.

SAILING-SHIPS.

At no period has so much care and time been bestowed on the survey and equipment of sailing-vessels as has been done during the last year. The survey of sailing-vessels over a certain tonnage being now compulsory, the complete survey of most of these vessels has taken place during the year. The hulls of all the vessels dealt with have been examined very carefully to see that there were no defects due to natural decay, worms, or wear-and-tear. Great difficulty has been experienced in getting suitable places to sight the hulls externally, especially in Auckland, owing to the lack of slips and dock-accommodation for such a purpose, and in consequence delay in completing some of the surveys took place. The repairs necessary were fairly extensive in some cases, and, as most of these vessels have now been through the Surveyors' hands and have been practically reclassed, the surveys next year should be completed in less time, unless accidents occur in the meantime to materially damage the vessels. The total number of surveys of sailing-vessels carried out during the year was 109.

Return No. 18 gives the names of these vessels, their gross and registered tonnage measurements, class of vessel, and the number of times surveyed. The total fees for the survey of these sailing-vessels amounted to £340 5s.

Some of the principal surveys of sailing-ships during the year are as follows:—

Scow "Arrah-na-Pogue."—This scow was built in Auckland last year under the supervision of a Surveyor of Ships. The vessel, which is built of kauri and sheathed with totara, has a gross tonnage of 187, and register tonnage of 100; length, 116 ft.; breadth, 33·2 ft.; depth, 7·4 ft. The scantlings of the hull were set out in a plan and specification which were approved by the Department.

Ketch "Coronation."—The donkey-boiler on board this vessel was found in very bad condition at landings of shell and bottom of firebox. A new donkey-boiler of the vertical cross-tube type has been placed on board, and new steam and exhaust pipes for winch fitted. The hull of the vessel was cleaned and painted and sheathed where required, and some new cable and a new kedge-anchor were placed on board.

Schooner "Eliza Firth."—This wooden sailing-vessel has been twice surveyed during the year. Six planks on the starboard side of the hull were taken out and renewed, and fourteen new timbers were put in. The covering-boards were renewed for 18 ft. on the starboard side and for 16 ft. on the port side. The inner skin in the hold was renewed where required. The steering-gear was thoroughly overhauled, and new wheel-chains fitted.

Schooner "Era."—The hull of this vessel has been thoroughly overhauled on the slip. Several broken planks on the bottom and top sides were replaced by new ones; all deck-beams and decking from scuttle forward to deckhouse aft have been renewed. Ballast-tanks have been fitted. Donkey-boiler, winch, and windlass have all been thoroughly overhauled.

Scow "Ida."—This wooden scow, which is twenty-nine years old, had her hull well overhauled. Several new planks were put in the bottom of vessel, nearly the whole of the port-side planking was renewed, and also a portion of that on the starboard side, which was refastened along the edge, and sheathed with totara. Two new planks were fitted in the top of the cabin. Thirty fathoms of new cable, and new foremast, rigging, lanyards, sails, &c., were shipped.

Schooner "Lady of the Lake."—The repairs to this vessel consisted of the renewing of nearly the whole of the bow, also several planks on the bottom, and some sheathing.

Schooner "Lizzie Taylor."—On the port side of the hull four planks and six timbers were renewed. Thirty fathoms of new cable were placed on board. A new Oregon-pine mainmast 58 ft. long, also new main topmast, main boom, jib-boom, several stays, and halyards were fitted.

Schooner "Moa."—The hull of this vessel was examined in dock, and repaired where required. The firebox of the donkey-boiler was removed, and a new uptake fitted. The firebox was badly pitted, and before being replaced was cement-washed. Compensating-rings were riveted round all sludge-holes.

* Steamers.

Schooner "Ngaru."—Six new planks were put in the port bow where the worm was in evidence, and two new planks were put in the starboard bow where they had been fractured by the anchor. Seven pairs of angle-irons were fitted and bolted from the deck-beams under the deck where they were fractured. They were tied together with 9 in. by 4 in. timber, and bolted. All struts on the sides were replaced by new ones where required. The centreboard was refastened, and new sheaves and bolts for the hoisting-gear were fitted. New hoisting-gear was supplied for the after end.

Scow "Onerahi."—This is a wooden vessel, built in New Zealand, launched during the year, and of the following dimensions: length, 73·2 ft.; breadth, 21·5 ft.; depth, 4·45 ft. The tonnage is 47 gross and 25 register. The drawings and specifications of the hull were submitted for approval and passed by the Department. The material of the hull is all heart of kauri. The vessel is engaged carrying cargo in the home trade.

Schooner "Rangi."—When the sheathing was removed from the stern under the starboard quarter several worm-eaten planks were taken out. New planks have been put in, caulked, and pitted, and covered with new totara sheathing. New totara sheathing has also been placed on about one-fourth of the bottom of the vessel. The donkey-boiler was cleaned out, and the mountings overhauled. A new pressure-gauge was fitted.

Cutter "The Lee."—This cutter has been surveyed twice during the year, and has had extensive repairs to her hull. A new ironbark false keel, 7 in. by 3 in., has been fitted to whole length of keel, and other renewals are: keelson, 9 in. by 7 in., several planks in bottom, port side, five bottom frames, ceiling of hold and stiffening timbers on each side fore and aft at turn of bilge. Several repairs were made to the rudder, and the tiller has been replaced by a new steering-wheel, spindle, blocks, ropes, &c. The windlass was also overhauled.

Districts and Inspectors.

Mr. Philip J. Carman, who filled the position of Senior Inspector of Machinery and Senior Surveyor of Ships in the Canterbury District, retired from the service on the 31st December, 1912, having reached the age-limit. He had been connected with the Department since the 1st April, 1893. He was attached to the Wellington District until the 1st April, 1895, and ever since then he has been in the Canterbury District. During the whole of his service he displayed great tact and judgment in dealing with both the inspection of machinery and the survey of ships, and has always had the entire confidence of the Department, shipowners, and machinery-owners. I trust that he will be long spared to enjoy his well-earned retirement.

Mr. Bethune was transferred from Otago to fill the position vacated by Mr. Carman in the Canterbury District; Mr. Williamson was transferred from Timaru to take up the senior position as Inspector of Machinery and Surveyor of Ships in Otago vacated by Mr. Bethune; and Mr. A. McKenzie, who had been stationed at Christchurch for some years, was transferred to Timaru to succeed Mr. Williamson; Mr. Knowles, of the Otago District, was transferred to Christchurch to take up Mr. McKenzie's duties; and Mr. Cooper, of the Head Office staff, was transferred to Dunedin to succeed Mr. Knowles.

The following additions to the technical staff have been made during the year: Mr. John H. Knowles, appointed to Otago District on the 24th April, 1912; Mr. A. C. Reid, appointed to the Auckland District on the 31st July, 1912; and Mr. J. W. Townsend, appointed to the Head Office staff, Wellington, on the 24th October, 1912.

Returns.

The following are the returns in detail, numbered 1 to 21:—

1. Number and class of boilers inspected, and fees payable thereon; the machinery inspected, and the fees payable; and the classes and numbers of engine-drivers' and electric-tram drivers' certificates issued, and the fees payable therefor.
2. Return of defects found on inspection of boilers.
3. Return of notices given to repair boilers.
4. Return of notices given to fence dangerous parts of machinery.
5. Return of accidents which were not fatal.
6. Return of accidents which proved fatal.
7–15. Names of persons to whom land stationary, winding, locomotive and traction engine, and electric-tram drivers' certificates of competency and service have been granted during the year.
16. List of persons who were examined and passed for marine engineers' certificates of competency.
17. Return of steamers and oil-engined vessels surveyed during the year.
18. Return of sailing-vessels surveyed during the year.
19. Return of vessels surveyed for seaworthiness, &c., during the year.
20. Return showing sums earned or received and amount spent during the financial year for inspection of machinery, examination of engineers, engine-drivers, and electric-tram drivers, and surveys of steamers and sailing-vessels.
21. Return showing the names of owners of additional boilers and transfers which require to be in charge of certificated engine-drivers.

I have, &c.,

Robert Duncan,

Chief Inspector of Machinery, Chief Surveyor of Ships, and Chief Examiner of Marine Engineers, Land Engineers, and Engine-drivers.

The Hon. the Minister in Charge of the Inspection of Machinery Department.

RETURNS.

No. 1.

(*a.*) RETURN SHOWING THE NUMBER OF LAND BOILERS AND MACHINERY FOR WHICH CERTIFICATES WERE ISSUED DURING THE FINANCIAL YEAR ENDED THE 31ST MARCH, 1913.

Boilers.

Class.	Not exceeding 5 Horse-power.	Exceeding 5 but not exceeding 10 Horse-power.	Exceeding 10 Horse-power.	Total.
Stationary	2,197	995	1,972	5,164
Portable	161	1,232	454	1,847
Totals	2,358	2,227	2,426	7,011

Machinery.

Class.	Number.
Hydraulic lifts	300
Gas-lifts	39
Electric lifts	341
Steam-lifts	26
Oil-lifts	5
Gas, hydraulic, and electric-motor hoists	397
Water-engines, water and electric motors, and water-wheels	2,327
Peltons	262
Turbines	105
Gas-engines	1,531
Oil-engines	2,794
Steam machinery	58
Total	8,185

Summary.

Boilers	7,011
Machinery	8,185
Total	15,196

(*b.*) RETURN SHOWING THE FEES PAYABLE FOR THE INSPECTION OF BOILERS AND MACHINERY, AND FOR THE ISSUE OF ENGINE-DRIVERS' AND ELECTRIC-TRAM DRIVERS' CERTIFICATES DURING THE FINANCIAL YEAR ENDED THE 31ST MARCH, 1913.

Fees payable—On boilers, £7,969; on machinery, £2,736 17s. 6d.; for engine-drivers' certificates issued, £477 10s.; for electric-tram drivers' certificates issued, £98: total, £11,281 7s. 6d. The actual receipts for boilers and machinery inspected amounted to £9,725 7s. 6d. The difference is represented by fees not yet paid. The actual receipts for engine-drivers' and electric-tram drivers' application fees amounted to £799 2s. 6d. This amount includes fees from candidates who failed to pass the examinations.

(*c.*) RETURN SHOWING THE NUMBER OF SERVICE AND COMPETENCY CERTIFICATES ISSUED TO WINDING, LOCOMOTIVE, TRACTION, AND STEAM STATIONARY ENGINE DRIVERS, AND TO ELECTRIC-TRAM DRIVERS, DURING THE FINANCIAL YEAR ENDED THE 31ST MARCH, 1913.

Class of Certificate.	Number of Certificates issued.	Fees received.	Total. Number of Certificates issued.	Total. Fees received.
		£ s. d.		£ s. d.
Steam winding—				
Competency	27	27 0 0	...	...
Electric winding—				
Service	1	0 5 0	28	27 5 0
Locomotive and traction—				
Competency	191	191 0 0	191	191 0 0
Steam stationary—				
Service—First class	13	3 5 0	...	...
Competency—				
Extra first class	4	4 0 0	...	...
First class	61	61 0 0	...	...
Second class...	191	191 0 0	269	259 5 0
Electric-tram—				
Service	2	...	...	...
Competency	98	98 0 0	100	98 0 0
			588	£575 10 0

No. 2.—Return of Defects found on Inspection of Boilers during the Financial Year ended the 31st March, 1913.

Description of Defects.	Dangerous.	Defective in Lesser Degree.	Total.
A number of rivets in furnace bad	..	1	1
A number of rivets in shell bad	..	2	2
All screwed stays in firebox bad	4	..	4
Angle-iron collar on top end of uptake defective	..	1	1
Angle-iron stay connections defective	..	1	1
Back head-plate wasted at bottom	..	1	1
Back tube-plate bulged	..	2	2
Badly bulged on bottom of shell	4	..	4
Badly pitted inside shell	..	6	6
Boilers dirty inside	..	37	37
Boilers very dirty inside	4	..	4
Bolts in gusset-stays defective	..	1	1
Bottom of firebox thin	..	1	1
Bottom of shell defective	1	5	6
Bottom row of tubes bad	..	1	1
Brickwork setting defective	..	16	16
Bulged under bottom of shell	..	9	9
Bulged under fire-door	..	1	1
Circumferential seams wasted	..	1	1
Compensating-ring round manhole-opening defective	..	1	1
Corners of firebox wasted	..	1	1
Corroded internally	..	5	5
Coupling-pins in diagonal stays bad	..	1	1
Coupling-pins in longitudinal stays bad	..	1	1
Cracked slightly at landings	..	3	3
Cracked slightly in firebox	..	4	4
Cracked under bottom of shell	1	1	2
Crown of boiler wasted	..	3	3
Crown of firebox and girders buckled	..	1	1
Crown of firebox cracked	..	1	1
Crown of firebox slightly bulged	..	4	4
Crown of firebox wasted	..	9	9
Crown of firebox wasted (pressure reduced)	..	1	1
Crown of firebox wasted badly	1	..	1
Crown of steam-dome wasted	..	1	1
Eight screwed stays in firebox bad	..	1	1
Eight tubes bad	..	1	1
Eighteen screwed stays in firebox bad	..	1	1
Eighteen tubes bad	..	1	1
Eleven rivets in shell bad	..	1	1
Eleven screwed stays in firebox bad	..	1	1
Eleven tubes bad	..	1	1
Expansion-rings defective	..	1	1
Fifteen rivets defective	..	1	1
Fifteen screwed stays in firebox bad	..	3	3
Firebox general waste	5	..	5
Firebox-sides bulged	..	3	3
Firebox-sides thin	2	7	9
Firebox thin (pressure reduced)	..	3	3
Firebox wasted on outside shell	..	4	4
Five rivets in tube-plate bad	..	1	1
Five rows of tubes bad	..	1	1
Flanges of cross-tubes wasted	..	1	1
Flanges of galloway tubes wasted	..	1	1
Forty-eight screwed stays in firebox bad	1	..	1
Foundation-rings round bottom of firebox defective	..	7	7
Fourteen screwed stays in firebox bad	..	1	1
Fourteen tubes bad	..	1	1
Front tube-plate wasted	..	2	2
Furnace-crowns slightly down	..	2	2
Furnace-crowns wasted	..	2	2
Furnaces thin	1	..	1
Furnace wasted at end	..	1	1
Galloway tubes thin	..	1	1
General deterioration (pressure reduced)	..	164	164

No. 2.—Return of Defects, etc.—*continued.*

Description of Defects.	Dangerous.	Defective in Lesser Degree.	Total.
Girders on crown of firebox wasted	..	7	7
Girder-stays defective	..	4	4
Grooved at foundation-ring	..	1	1
Grooved on furnace-crown	..	1	1
Grooved round circumferential seams on bottom	..	1	1
Grooved round flanges of galloway tubes	..	1	1
Grooved round uptake on crown of firebox	..	2	2
Grooved slightly at back tube-plate	..	1	1
Gusset-stays defective	..	1	1
Laminated plate in shell	..	1	1
Longitudinal seams wasted	..	1	1
Longitudinal stays wasted	..	3	3
Manhole-doors bad	..	14	14
Manhole-door dogs bad	..	2	2
Manhole-door riveting defective	..	2	2
Manhole-door spigots defective	..	15	15
Manhole-door studs bad	..	8	8
Manhole-opening in shell wasted	..	10	10
Mud-drums thin	..	1	1
Mudhole-doors bad	..	46	46
Mudhole-door dogs bad	..	3	3
Mudhole-door studs bad	..	10	10
Nine tubes bad	..	2	2
Nineteen tubes bad	..	1	1
One hundred and twenty-six screwed stays in firebox bad	1	..	1
One stay-tube bad	..	1	1
Patches defective	..	9	9
Pitting badly in bottom of shell	..	1	1
Pitting badly in places	..	2	2
Pitting on crown of furnace	..	1	1
Pitting slightly internally	..	3	3
Rivets in bottom of shell wasted	..	4	4
Rivets in foundation-ring defective	..	1	1
Rivets in gusset-stays defective	..	1	1
Rivets in header defective	..	2	2
Rivets in manhole compensating-ring bad	..	3	3
Rivets in steam-dome defective	..	1	1
Seams defective	..	2	2
Seventy tubes bad	..	1	1
Several rivets bad in tube-plate	..	1	1
Several rivets bad in shell	..	6	6
Several rivets in mud-drum bad	..	1	1
Several rivets in uptake defective	..	1	1
Several screwed stays in firebox bad	..	24	24
Several stay-nuts defective	..	1	1
Several tubes bad	..	20	20
Shell wasted at bottom landings	..	4	4
Shell wasted at foundation-ring	..	2	2
Shell wasted at mudhole-openings	..	80	80
Shell wasted externally	..	3	3
Shell wasted under mountings	..	2	2
Shell wasted where blow-off cocks jointed to boiler	..	5	5
Shell wasted where check-valve chests jointed to boiler	..	2	2
Shell wasted where feed-pump connected to boiler	..	1	1
Shell wasted where safety-valve chests jointed to boiler	..	1	1
Shell wasted where stop-valves jointed to boiler	..	2	2
Sixteen screwed stays in firebox bad	..	2	2
Sixteen tubes bad	..	1	1
Sixty-six screwed stays in firebox bad	1	..	1
Stay-nuts bad	..	2	2
Stay-tubes bad	..	2	2
Stop-valve connection defective	..	1	1
Studs in steam-dome defective	..	1	1
Ten screwed stays in firebox bad	..	2	2
Ten tubes bad	..	3	3
Thirty screwed stays in firebox bad	..	1	1

No. 2.—Return of Defects, etc.—*continued.*

Description of Defects.	Dangerous.	Defective in Lesser Degree.	Total.
Thread in tapered plug-holes defective	..	3	3
Throat-plate wasted	..	1	1
Top row of tubes bad	..	1	1
Top tube-plates thin (pressure reduced)	..	2	2
Top tube-plates wasted	..	26	26
Tubes bad	..	71	71
Tubes pitted	..	3	3
Tube-plates bad	..	7	7
Tube-plates cracked	..	2	2
Tube-plates wasted at mudhole-openings	..	5	5
Twelve screwed stays in firebox bad	..	1	1
Twelve tubes bad	..	1	1
Twenty screwed stays in firebox bad	..	2	2
Twenty-six screwed stays in firebox bad	..	1	1
Two longitudinal stays wasted	..	1	1
Two rows of screwed stays in each side of firebox bad	..	1	1
Uptakes bad	..	4	4
Uptakes wasted	..	8	8
Vertical stays wasted	..	4	4
Wasted at crown of firebox where fusible plug fitted	..	8	8
Wasted at line of firebars	..	1	1
Wasted round bottom of firebox	..	9	9
Wasted round furnace-door externally	..	1	1
Wasted under furnace-door inside	..	2	2
Totals	26	843	869

Digestors found to be Defective on Inspection during the Financial Year ended the 31st March, 1913.

Description of Defects.	Dangerous.	Defective in Lesser Degree.	Total.
All bolts in bottom door bad: were renewed	1	..	1
All rivets in bottom circumferential seams defective: were renewed	1	..	1
All rivets in top end bad: were renewed	1	..	1
All rivets in top door-flange defective: were renewed	..	1	1
All rivets renewed in shell	1	..	1
Corroded badly on top plates	..	1	1
Doors defective: new ones fitted	..	2	2
Lugs on top door defective: were renewed	..	1	1
New end fitted	1	..	1
One hundred rivets bad and seams defective: new rivets fitted and landings caulked	..	1	1
Seams defective: pared and caulked	..	13	13
Six rivets renewed	..	2	2
Thirty-four rivets defective: were renewed	..	1	1
Thirty-seven rivets defective: were renewed	..	1	1
Vertical seams re-riveted and landings caulked	..	1	1
Wasted badly on top inside: new top fitted	2	..	2
Wasted round bottom circumferential seams	..	4	4
Totals	7	28	35

DEFECTIVE FITTINGS FOUND ON INSPECTION OF BOILERS, FOR WHICH NOTICE WAS GIVEN TO RENEW OR REPAIR DURING THE FINANCIAL YEAR ENDED THE 31ST MARCH, 1913.

1 Bends of blow-off cocks defective: were renewed.
2 Bends of main steam-pipe defective: were renewed.
9 Blow-off cocks bad: have been renewed.
1 Blow-off cocks defective: were repaired.
12 Blow-off pipes bad: have been renewed.
4 Brake gear defective: has been put in order.
1 Crank-shaft of engine bent: was straightened.
1 Crank-shaft of engine broken: new one made.
3 Feed check-valve chests and valves bad: have been renewed.
4 Feed check-valves defective: were renewed.
1 Feed-pump defective: put in order.
14 Ferrules fitted under spring-balance safety-valve levers.
1 Fly-wheel bracket defective: was repaired.
1 Fly-wheel of engine defective: was repaired.
21 Fusible plugs defective: were renewed.
38 Guards fitted to water-gauge glasses.
2 Injectors defective: were renewed.
1 Injector steam-pipes defective: were renewed.
1 Main steam-pipe bad: was renewed.
2 Main stop-valves defective: were renewed.
14 Manhole-doors bad: have been renewed.
3 Manhole-door dogs bad: were renewed.
8 Manhole-door studs bad: were renewed.
46 Mudhole-doors bad: have been renewed.
10 Mudhole-door studs bad: were renewed.
1 New cylinders fitted to engine.
1 Pipe for feed-pump bad: was renewed.
1 Reducing-valves fitted.
19 Safety-valves bad: were renewed.
3 Safety-valves defective: were put in order.
5 Safety-valve springs bad: were renewed.
4 Spring balances defective: new ones fitted.
2 Steam-pipes defective: were renewed.
42 Steam-pressure gauges defective: were renewed.
5 Steering-gear of traction-engine defective: was put in order.
1 Steering-gear worms defective: were renewed.
1 Steering-gear worm-wheel defective: was renewed.
3 Stop-valves defective: have been renewed.
4 Tapered mud-plugs defective: new ones fitted.
10 Test-cocks bad: have been renewed.
1 Test-cocks defective: were repaired.
1 Valve-chest for feed-pump cracked: new one fitted.
20 Water-gauge mountings bad: were renewed.
9 Water-gauge mountings defective: put in order.
1 Water-gauge pipes bad: were renewed.

Total 335

No. 3.—RETURN OF NOTICES GIVEN TO REPAIR BOILERS DURING THE FINANCIAL YEAR ENDED THE 31ST MARCH, 1913.

Number.	Type.	Description of Repairs.
1	Cornish	End of furnace repaired.
2	,, ...	Expansion-rings repaired.
1	,, ...	Furnace repaired.
2	,, ...	Patch riveted over crown of furnace.
1	,, ...	Several rivets renewed in furnace.
1	,, ...	Stays fitted between crown of boiler and furnace.
1	Cornish tubular ..	Gusset-stays repaired.
1	,, ..	Patch fitted on shell under blow-off cock.
1	,, ..	Retubed.
1	,, ..	Two circumferential landings caulked.
1	Dryback marine ..	Compensating-ring fitted under blow-off cock.
1	,, ..	Patch fitted on furnace-crown.
1	,, ..	Retubed.
1	,, ..	Thirty new tubes and patch on back tube-plate.
1	Lancashire ..	A number of rivets renewed in shell, and landings caulked.
1	,, ..	Several rivets renewed in furnace.
1	,, ..	Strengthening-rings fitted and riveted to furnace.
1	,, ..	Two gusset-stays re-riveted.
1	Lancashire tubular	A number of rivets renewed in furnaces.
1	,,	Retubed.
1	,,	Three new rivets fitted in gusset-stay.
1	,,	Two stay-nuts renewed.
1	Locomotive ..	Compensating-ring fitted to manhole-opening.
2	,, ..	Compensating-ring fitted to mudhole-opening
1	,, ..	Eleven new tubes fitted.
1	,, ..	Four longitudinal stays fitted in tube-space.
1	,, ..	Fourteen new screwed stays fitted in firebox, and a patch fitted under fire-door.
1	,, ..	New studs fitted in manhole-door.
1	,, ..	Patch in firebox renewed, twenty-six new screwed stays fitted in firebox, and compensating-ring on mudhole-opening.

No. 3.—Return of Notices given to repair Boilers, etc.—*continued.*

Number.	Type.	Description of Repairs.
1	Locomotive ..	Patch in firebox re-riveted.
1	,, ..	Patches renewed on each side of firebox, new patch fitted under fire-door, and patch on bottom of front tube-plate.
2	,, ..	Patches taken off firebox, and larger ones fitted.
2	,, ..	Retubed.
1	,, ..	Retubed, and five new screwed stays fitted in throat-plate.
1	,, ..	Retubed, 8 in. cut off bottom of firebox, and foundation-ring refitted.
1	,, ..	Retubed, new firebox, all new screwed stays, new firehole-ring, and compensating-rings fitted to four mudhole-openings.
1	,, ..	Retubed, new patch in firebox, and six new screwed stays in throat-plate.
1	,, ..	Rivets in foundation-ring renewed.
1	,, ..	Several rivets in shell renewed.
3	,, ..	Several screwed stays renewed in firebox.
1	,, ..	Sixteen new screwed stays fitted in firebox.
1	,, ..	Sixty-six new screwed stays fitted in firebox, spectacle patch on front tube-plate, and patch on back head-plate.
1	,, ..	Smoke-box tube-plate repaired by acetone process.
1	,, ..	Tapered mudholes retapped, and new plugs fitted.
1	,, ..	Thirty new screwed stays fitted in firebox, and patch in firebox under fire-door.
1	,, ..	Twelve new studs fitted in steam-dome.
1	,, ..	Twenty-seven new screwed stays fitted in firebox.
1	,, ..	Two new tapered plugs fitted.
1	,, ..	Two patches fitted in firebox.
1	,, ..	Two patches fitted in firebox, and defective screwed stays renewed.
1	,, ..	Two patches fitted in firebox, and 126 new screwed stays fitted.
1	,, ..	Two stays fitted through bulge in tube-plate.
1	,, ..	Wasted portion of front tube-plate at mudhole repaired by acetone process.
1	Manure-dryer ..	Inside shell renewed.
1	,, ..	One new plate in bottom.
1	,, ..	Several rivets renewed in shell.
1	Marine	Compensating-ring fitted to mudhole-opening.
1	,, ...	Patch fitted in combustion-chamber.
1	,, ...	Retubed.
1	Multitubular ..	Bottom of shell renewed.
13	,, ..	Brickwork repaired.
1	,, ..	Bulge cut out of bottom of shell, and new mud-leg fitted.
2	,, ..	Bulge cut out of bottom of shell, and new plate fitted.
2	,, ..	Bulge cut out of bottom of shell, and patch riveted on.
8	,, ..	Compensating-ring fitted round manhole-openings.
1	,, ..	Compensating-ring fitted round manhole-opening, and new door fitted.
8	,, ..	Compensating-rings fitted round mudhole-openings.
7	,, ..	Compensating-ring fitted round mudhole-openings, and new doors fitted.
3	,, ..	Compensating-ring round manhole-opening re-riveted.
1	,, ..	Compensating-ring round manhole-opening re-riveted, and new door fitted.
1	,, ..	Crack in bottom of shell chain-pinned.
1	,, ..	Cracked portion cut out of bottom of shell, and patch riveted on.
1	,, ..	Eight new tubes fitted.
1	,, ..	Eighteen new tubes fitted.
1	,, ..	Longitudinal angle-iron stay-connections renewed.
1	,, ..	Main stay-nuts renewed.
7	,, ..	Manhole-door spigots renewed.
1	,, ..	Manhole-opening dressed out, and new door fitted.
1	,, ..	Mudhole-openings dressed out, and new doors fitted.
6	,, ..	New manhole-doors fitted.
2	,, ..	New manhole-doors and compensating-rings fitted to openings
10	,, ..	New mudhole-doors fitted.
2	,, ..	New mudhole-door, and new spigot for manhole-door.
1	,, ..	New mudhole-door, and several new tubes.
1	,, ..	New saddle-plate riveted on shell for stop-valve.
2	,, ..	New spigots fitted to manhole and mudhole doors.
3	,, ..	New stay-tubes fitted.
1	,, ..	New studs fitted to manhole-doors.

No. 3.—Return of Notices given to repair Boilers, etc.—*continued.*

Number.	Type.	Description of Repairs.
3	Multitubular ..	New studs fitted to mudhole-doors.
2	,, ..	Patch fitted on bottom of shell.
1	,, ..	Patch fitted on bottom of shell, and several new tubes.
1	,, ..	Patch fitted on bottom of shell over cracked rivet-holes and grooving.
1	,, ..	Patch fitted on bottom of shell over wasted landings.
1	,, ..	Patch riveted over circumferential seams where cracked.
6	,, ..	Patches riveted over wasted portions of bottom.
2	,, ..	Patches taken off bottom of shell, and extended ones fitted.
1	,, ..	Patches under mountings renewed.
9	,, ..	Retubed.
1	,, ..	Retubed, and compensating-rings fitted to mudhole-openings.
1	,, ..	Retubed, compensating-ring fitted to mudhole-opening, and two new longitudinal stays in steam-space.
1	,, ..	Retubed, patch fitted on shell under check-valve, and new spigot to manhole-door.
1	,, ..	Several rivets renewed in shell.
1	,, ..	Several rivets renewed in steam-dome.
5	,, ..	Several tubes renewed.
1	,, ..	Sixteen new tubes fitted.
1	,, ..	Sixteen tubes drawn to clean boiler, and tubes afterwards renewed.
1	,, ..	Ten rivets renewed in steam-dome and sixteen in shell.
1	,, ..	Top row of tubes renewed.
2	Portable ..	A number of new screwed stays fitted in sides of firebox.
1	,, ..	All new screwed stays fitted in firebox.
1	,, ..	Compensating-ring fitted to manhole-opening.
22	,, ..	Compensating-rings fitted to mudhole-openings.
1	,, ..	Compensating-rings fitted to mudhole-openings, and new dogs for mud-doors.
1	,, ..	Compensating-rings fitted to mudhole-openings, and several new tubes fitted.
1	,, ..	Corners of firebox repaired.
1	,, ..	Eight new screwed stays fitted in firebox.
1	,, ..	Eighteen new screwed stays fitted in firebox.
1	,, ..	Eleven new screwed stays fitted in firebox.
1	,, ..	Eleven new tubes fitted.
1	,, ..	Fifteen new screwed stays fitted in firebox.
1	,, ..	Fifteen new screwed stays fitted in firebox, and compensating-ring to mudhole-opening.
1	,, ..	Forty-eight new screwed stays fitted in firebox.
1	,, ..	Foundation-rings repaired.
1	,, ..	Fourteen new screwed stays fitted in firebox.
1	,, ..	Girders and stays renewed on firebox-crown, and compensating-rings fitted to mudhole-openings.
1	,, ..	Girder-stays renewed.
1	,, ..	New firebox and several patches on outer shell fitted.
1	,, ..	New girders fitted on crown of firebox.
1	,, ..	New girders fitted on crown of firebox, and several new stays fitted.
1	,, ..	New manhole-door fitted.
6	,, ..	New mudhole-doors fitted.
2	,, ..	New mudhole-doors fitted and openings dressed out.
1	,, ..	Nine new tubes fitted.
1	,, ..	Nine een new tubes fitted.
1	,, ..	One new cross-girder wi h three stays fitted to crown of firebox.
1	,, ..	One new longitudinal stay fitted.
1	,, ..	Patch fitted on firebox-crown, and four new screwed stays.
1	,, ..	Patch fitted on firebox-crown, and six new rivets put in front tube-plate.
1	,, ..	Patch fitted on side of firebox, and six new screwed stays.
2	,, ..	Patches on crown of firebox renewed.
1	,, ..	Patches on foundation-ring renewed, nine new tubes and one new mud-door fitted.
1	,, ..	Patch put on shell under feed-pump, and mudhole-opening compensated.
6	,, ..	Retubed.
1	,, ..	Retubed, and new tube-plate fitted.
1	,, ..	Retubed, and twenty new screwed stays fitted in firebox.
1	,, ..	Retubed, mudhole-opening compensated, and new mud-door.

No. 3.—Return of Notices given to repair Boilers, etc.—*continued.*

Number.	Type.	Description of Repairs.
1	Portable ..	Retubed, new longitudinal stays fitted, and mudhole-opening compensated.
1	,, ..	Retubed, one new door, and new crown in firebox.
10	,, ..	Several new screwed stays fitted in firebox.
2	,, ..	Several new tubes fitted.
1	,, ..	Sight-hole cut in firebox, and six new screwed stays fitted.
1	,, ..	Six stays fitted between crown of boiler and crown of firebox.
3	,, ..	Sixteen new screwed stays fitted in firebox.
2	,, ..	Ten new screwed stays fitted in firebox.
1	,, ..	Ten new tubes fitted.
1	,, ..	Thirty new screwed stays fitted in firebox.
1	,, ..	Three new girders fitted on crown of firebox.
1	,, ..	Three patches on firebox-shell renewed.
2	,, ..	Twenty new screwed stays fitted in firebox.
1	,, ..	Two additional girders and four bolts fitted over present girders on firebox-crown.
1	,, ..	Two patches in firebox renewed.
1	,, ..	Two rows of tubes renewed.
1	Semi-portable ..	All new screwed stays fitted in firebox.
1	,, ..	Fifteen new screwed stays fitted in firebox.
1	,, ..	One new longitudinal stay fitted.
1	,, ..	Patches fitted in firebox.
1	,, ..	Retubed.
1	,, ..	Several rivets renewed in shell.
1	Semi-tubular ..	Blow-off cock taken off, and compensating-ring fitted on boiler-shell.
1	,, ..	New firebox fitted.
1	,, ..	Patch fitted on bottom of shell.
1	,, ..	Patch renewed.
2	,, ..	Retubed.
1	,, ..	Retubed, and patch fitted on crown of boiler.
1	,, ..	Stay-tubes renewed.
1	,, ..	Two new stay-nuts fitted.
1	Traction ..	All new screwed stays fitted in firebox.
1	,, ..	Compensating-ring fitted to manhole-opening.
5	,, ..	Compensating-rings fitted to mudhole-openings.
1	,, ..	Compensating-ring fitted to mudhole-opening, and new tapered mud-plug in front tube-plate.
1	,, ..	Compensating-ring fitted to mudhole-opening, and pigot to manhole-door.
1	,, ..	Crack cut out of side of firebox, and patch fitted.
1	,, ..	Eight rivets renewed in tube-plate.
1	,, ..	Fifteen new screwed stays fitted in firebox.
1	,, ..	Fusible plug-hole enlarged, and new plug fitted.
1	,, ..	Girders on crown of firebox repaired.
1	,, ..	New dogs for manhole-door.
1	,, ..	New firebox fitted.
1	,, ..	New firebox and new tubes fitted.
2	,, ..	New mud-doors fitted.
3	,, ..	Patch fitted on crown of firebox.
1	,, ..	Patch fitted on crown of firebox at fusible plug-hole, and several screwed stays renewed.
1	,, ..	Patch fitted on firebox outside, new coupling-pins in longitudinal stays, new studs and dogs for manhole-door.
1	,, ..	Patch on bottom of throat-plate enlarged, patch fitted on back head-plate, and seven new screwed stays
1	,, ..	Patch on firebox-crown renewed, and mudhole-opening compensated.
1	,, ..	Patch on firebox renewed, four new screwed stays in throat-plate, and two new coupling-pins in diagonal stays.
2	,, ..	Plug-holes re-tapped, and new tapered plugs fitted.
6	,, ..	Retubed.
1	,, ..	Retubed, and patch on tube-plate.
1	,, ..	Seven new tubes and two new mud-doors.
5	,, ..	Several new screwed stays fitted in firebox.
2	,, ..	Several new tubes fitted.
1	,, ..	Shell under blow-off cock patched, and new mud-door fitted.
2	,, ..	Studs in manhole-door renewed.
1	,, ..	Ten new tubes fitted.
1	,, ..	Two new cross-girders and four stays in crown.
1	,, ..	Two new nuts fitted to crown-stays, and fusible plug-hole enlarged.

No. 3.—Return of Notices given to repair Boilers, etc.—*continued.*

Number.	Type.	Description of Repairs.
1	Traction ..	Two rows of screwed stays on each side of firebox renewed, and two mudhole-openings compensated.
1	,, ..	Wasted part of foundation-ring repaired.
1	Vertical cross-tube	Angle-collar renewed round uptake.
1	,,	Bottom of shell renewed.
4	,,	Compensating-rings fitted round mudhole-openings.
1	,,	Compensating-ring fitted to mudhole-opening, and new spigot to manhole-door.
1	,,	Eight rivets renewed in shell.
1	,,	Five mudhole-doors renewed.
1	,,	Foundation-ring re-riveted.
1	,,	Manhole-door repaired.
1	,,	New crown to boiler, new uptake, and new vertical stays fitted.
3	,,	New manhole-doors fitted.
3	,,	New mudhole-doors fitted.
2	,,	New uptakes fitted.
1	,,	New vertical stays fitted.
1	,,	Patch fitted on bottom of shell.
1	,,	Patch fitted on shell under blow-off cock.
1	,,	Patches renewed.
1	,,	Two new stay-nuts fitted.
1	,,	Vertical stays fitted with new coupling-pins.
1	Vertical field-tube	Manhole-door strengthened.
1	,,	Patch fitted on bottom of shell.
1	,	Retubed.
1	,,	Several rivets renewed in shell.
1	,,	Several tubes renewed.
1	,,	Uptake repaired.
1	Vertical flue ..	Compensating-rings fitted to mudhole-openings.
1	,, ..	Compensating-ring fitted to mudhole-opening, and foundation-ring repaired.
1	,, ..	Foundation-ring repaired.
1	,, ..	Four stays fitted between crown of boiler and crown of firebox.
1	,, ..	Fourteen rivets renewed in foundation-ring.
1	,, ..	Manhole-door re-riveted.
1	,, ..	New dogs fitted to manhole-door.
1	,, ..	New mud-door fitted.
1	,, ..	New spigot fitted to manhole-door.
1	,, ..	New uptake fitted.
1	,, ..	Patch fitted in firebox.
1	,, ..	Patch fitted on bottom of shell.
1	,, ..	Several rivets in uptake renewed.
1	Vertical tubular ..	A number of tubes renewed.
5	,, ..	Compensating-rings fitted to mudhole-openings.
1	,, ..	Eight tubes renewed.
1	,, ..	Eleven new tubes fitted.
1	,, ..	Four new vertical stays fitted.
1	,, ..	New crown, new tubes, and mudhole-openings fitted with compensating-rings.
1	,, ..	New shell fitted.
2	,, ..	New top tube-plate fitted.
1	,, ..	New vertical stays fitted, and mudholes compensated.
1	,, ..	Patch fitted round firebox-door.
1	,, ..	Patch on bottom of firebox extended.
2	,, ..	Patches renewed.
19	,, ..	Retubed.
5	,, ..	Retubed, and new top tube-plates fitted.
1	,, ..	Retubed, and top tube-plate patched.
3	,, ..	Several new tubes fitted.
1	,, ..	Several rivets renewed in shell.
1	,, ..	Spectacle-piece fitted on top tube-plate, and six tubes renewed.
1	,, ..	Twelve new tubes fitted.
1	,, ..	Two new mud-doors fitted.
1	Water-tube ..	Five rows of tubes renewed.
2	,, ..	Front headers re-riveted to drum.
1	,, ..	Retubed.
1	,, ..	Several rivets renewed in steam-drum.
3	,, ..	Several tubes renewed.
1	,, ..	Sixty-nine new tubes fitted.
471	Total.	

No. 4.—Return of Notices given to fence or repair Dangerous Parts of Machinery, etc., during the Financial year ended the 31st March, 1913.

Number.	Machinery.	Particulars.
1	Air-compressing ..	Belting and shafting.
1	,, ..	Fly-wheel of engine and belting.
1	Bacon-factory ..	Belting.
1	,, ..	Machinery.
1	Bagmaking ..	Shaft and belting.
1	Bakery	Fly-wheel and belting.
1	,, ...	Fly-wheel and side of mixer.
1	,, ...	Machinery.
1	Biscuit-factory ..	Belting.
2	,, ..	Machinery.
1	Boatbuilding ..	Belting.
1	,, ..	Pulleys and shafting.
1	Bone-crushing ..	Fly-wheel of engine.
1	Boot-factory ..	Belting.
2	,, ..	Belting and fly-wheel.
2	,, ..	Belting and pulley.
1	,, ..	Emery wheel.
1	,, ..	Levelling-machine.
1	Boring	Engine.
1	Brewery	Belting and malt-hoist.
2	,, ...	Pump-gearing and belt.
1	,, ...	Refrigerator and motor.
1	Brickmaking ..	Engine and belting.
2	,, ..	Fly-wheel of engine.
1	,, ..	Main belting.
2	,, ..	Machinery.
1	,, ..	Shafting.
1	Building ..	Pulley and belting.
3	Butchery ..	Belting.
2	,, ..	Belting and pulley.
2	,, ..	End of shafting.
1	,, ..	End of shafting, pulley, and belting.
2	,, ..	Engine and belting.
9	,, ..	Fly-wheel.
2	,, ..	Fly-wheels and end of shaft.
1	,, ..	Key-leads and fly-wheel.
4	,, ..	Machinery.
1	Butter-factory ..	Belting.
1	,, ..	Fly-wheel.
2	,, ..	Machinery.
1	,, ..	Set-screw on refrigerator.
1	,, ..	Shafting.
1	Cabinetmaking ..	Belting.
1	,, ..	Belting of motor and sandpaper drum.
2	,, ..	Circular saws.
1	,, ..	Fly-wheel and planer-belt.
1	,, ..	Key of fly-wheel and driving-belt.
1	,, ..	Machinery.
6	Chaffcutting ..	Belting.
2	,, ..	Fly-wheel of engine.
2	,, ..	Gearing.
1	,, ..	Machinery.
1	,, ..	Side of water-wheel.
1	,, ..	Water-race and bevel wheels.
1	Cheese-factory ..	Counter-shaft.
1	,, ..	Fly-wheel.
1	,, ..	Rack and pinion on churn.
1	Chemical works ..	Main driving-belt.
1	Cinematograph ..	Machinery.
1	Coachbuilding ..	Belting of planing-machine.
2	,, ..	Emery wheels.
1	,, ..	Emery wheels, engine fly-wheel, band and circular saws.
2	,, ..	Fly-wheel of engine.
1	,, ..	Fly-wheel, shafting, emery wheels, pulleys, and belting.
1	,, ..	Main belting, pulleys, shafting, and set-screws.
1	,, ..	Shafting and side of engine.
1	Confectionery ..	Belting.
1	,, ..	Bottom of driving-belt.
1	,, ..	Fly-wheel and belting.
1	,, ..	Shafting.
1	Cooperage ..	Fly-wheel.
1	,, ..	Machinery.
1	Cordial-factory ..	Belting.
1	,, ..	Belting and firewood-saw.
1	,, ..	Driving-belt.
1	,, ..	Motor and belting.
1	,, ..	Pulley and main belting.
1	,, ..	Shafting.
2	Creamery ..	Belting.
1	,, ..	Fly-wheel of engine.
1	,, ..	Machinery.
1	,, ..	Main belting and pulley.
1	,, ..	Vacuum pump and belting.
1	,, ..	Wheels of pump.
1	Crushing grain ..	Belting.
3	,, ..	Fly-wheels of engine.
1	,, ..	Machinery.
1	Cycle-works ..	Fly-wheel.
1	,, ..	Machinery.
1	,, ..	Side of engine.
2	Dairy factory ..	Belting.
1	,, ..	Churn and fly-wheel of engine.
1	,, ..	Fly-wheel of engine.
2	,, ..	Fly-wheel of engine and driving-belt.
1	,, ..	Intermediate shafting.
2	,, ..	Machinery.
6	,, ..	Rack and pinions on churn.
1	,, ..	Side of engine and main driving-belt.
1	,, ..	Turbine and belting.
1	Electric generating	Fly-wheels and generator.
1	,,	Machinery.
1	Electric hoist ..	Belting.
1	,, ..	Geared wheels.
1	,, ..	Motor and gearing.
1	,, ..	New wire ropes fitted.
1	,, ..	Side of driving-belt.
1	Electric lift ..	Cage repaired.
2	,, ..	Door-catches in cage repaired.
1	,, ..	Floor-openings.
1	,, ..	Friction gearing adjusted.
1	,, ..	Gates repaired.
1	,, ..	Locks on doors repaired.
2	,, ..	Motor and gearing.
1	,, ..	New steel-wire ropes for balance-weights.
19	,, ..	New steel-wire ropes for cage.
1	,, ..	New steel-wire ropes for safety gear.
1	,, ..	Railing on first floor repaired.
1	,, ..	Safety gear fitted with new ropes.
9	,, ..	Safety grips overhauled and springs adjusted.
3	,, ..	Safety grips repaired.
2	,, ..	Starting-ropes renewed.
1	,, ..	Two doors repaired.
1	Electric lighting ..	Belting.
1	,, ..	Dynamo and engine.
1	,, ..	Fly-wheel and belting.
1	,, ..	Fly-wheel of engine.
1	,, ..	Fly-wheel of engine and generator.
1	,, ..	Intermediate shafting.
1	,, ..	Machinery.
1	,, ..	Shafting.
1	,, ..	Water-race.
1	Engineering-shop	Belting.
2	,,	Emery wheels.
1	,,	Emery wheels and machinery.
1	,,	Engine.
1	,,	Fly-wheel.
1	,,	Fly-wheel, belting, and lathe gearing.
1	,,	Geared wheels.
1	,,	Machinery.
1	,,	Pulley and wheel.
1	,,	Spur gearing.
1	Fellmongery ..	Belting.
1	Fendermaking ..	Intermediate shafting.
1	Firewood-cutting ..	Belting.
2	,, ..	Belting and circular saws.
1	,, ..	Belting, circular saws, and fly-wheel.
1	,, ..	Belting, pulley, and saw.
5	,, ..	Circular saws.
1	,, ..	Engine and pulley.
4	,, ..	Fly-wheels of engines.
1	,, ..	Fly-wheel, pulley, and belt.
1	,, ..	Key on crank-shaft.
1	,, ..	Pulleys.
1	Flax-mill ..	All belting and machinery.

No. 4.—Return of Notices given to fence or repair Dangerous Parts of Machinery, etc.—*continued.*

Number.	Machinery.	Particulars.
1	Flax-mill ..	Belting.
1	,, ..	Belting, pulley, and fly-wheel.
1	,, ..	Drum-belting.
1	,, ..	Fly-wheel and driving-belt.
1	,, ..	Fly-wheel and shafting.
2	,, ..	Machinery.
1	,, ..	Machinery and firewood-saw.
1	,, ..	Main belting, fly-wheel, and pulleys.
1	,, ..	Mill-race to cover.
1	,, ..	Pumps, wheel, and belting.
1	,, ..	Scutcher belting and pulley.
1	,, ..	Scutcher-mouth reduced in width.
1	,, ..	Scutcher shafting, pulley, and wheel.
1	,, ..	Stripper-belt and counter-shaft.
1	,, ..	Tail-race and machinery.
1	,, ..	Washer belting and counter-shaft.
1	,, ..	Water-race and machinery.
1	,, ..	Water-race, bevel wheels, and belting.
1	,, ..	Wheel, belting, and machinery.
2	Flour-mill ..	Belting.
1	,, ..	Engine.
1	,, ..	Fly-wheel of engine.
1	,, ..	Intermediate shafting.
3	,, ..	Machinery.
1	,, ..	Main driving-belt.
1	,, ..	Roller pulleys.
1	Friction hoist ..	Motor and belting.
2	,, ..	New wire ropes.
1	,, ..	Opening on top floor.
2	,, ..	Safety gear overhauled.
2	Friction lift ..	New wire ropes.
1	,, ..	Safety gear overhauled.
1	Fruit-preserving ..	Driving-belt.
1	,, ..	Machinery.
1	Furniture-factory ..	Fly-wheel and shafting.
1	,, ..	Intermediate shafting.
1	,, ..	Side of pulley.
1	,, ..	Side of shafting and back of engine.
2	Gas-engines ..	End of crank-shaft.
2	,, ..	Engines.
5	,, ..	Fly-wheels.
2	,, ..	Keys in fly-wheels and end of shafting.
20	,, ..	Self-starters to fit.
1	Gas-lifts ..	New steel-wire ropes for balance-weights.
1	,, ..	New steel-wire ropes for cage.
2	,, ..	Safety grips overhauled and adjusted.
1	,, ..	Safety grips repaired.
1	Gasworks ..	Fly-wheel and belting.
1	,, ..	Machinery.
2	General work ..	Belting.
2	,, ..	Circular saw and belting.
1	,, ..	Circular saw, belting, and shafting.
1	,, ..	End of shafting.
4	,, ..	Fly-wheels.
3	,, ..	Fly-wheels and pulleys.
1	,, ..	Fly-wheels and shafting.
2	,, ..	Machinery.
1	Grinding ..	Belting.
1	Hauling ..	Machinery.
1	Hoisting ..	Fly-wheel and end of shaft.
1	,, ..	Gantry to refasten.
1	,, ..	Main belting and key in pulley.
1	,, ..	New chain fitted.
10	Hydraulic crane ..	Chains annealed.
8	,, ..	New chains fitted.
1	,, ..	Top sheave rebushed.
2	,, ..	Turning-chain renewed.
1	Hydraulic lifts ..	Bottom of well.
1	,, ..	Chains annealed.
1	,, ..	Chains repaired.
1	,, ..	Gates renewed.
1	,, ..	Grip-rope repaired.
2	,, ..	Lift-wells fenced.
1	,, ..	New catches fitted to doors.
1	,, ..	New leathers for rams.
1	,, ..	New pin fitted in top sheave.
1	,, ..	New safety gear fitted.
1	,, ..	New steel-wire ropes fitted to balance-weights.
16	,, ..	New steel-wire ropes fitted to cage.
1	,, ..	Rails fitted round floor-openings.
6	,, ..	Safety catches overhauled and adjusted.
2	Hydraulic lifts ..	Safety catches overhauled and new springs fitted.
4	,, ..	Safety gear repaired.
1	,, ..	Valves overhauled.
1	,, ..	Valves repaired.
1	Joinery	Belting for circular saw.
1	,, ...	Counter-shaft to lathe and engine.
1	,, ...	Driving-belt and intermediate shafting.
1	,, ...	Engine.
3	,, ...	Fly-wheels.
2	,, ...	Fly-wheels and belting.
4	,, ...	Machinery.
1	,, ...	Planer and circular-saw belting, and pulley.
1	,, ...	Shafting along floor and fly-wheel of engine.
1	,, ...	Shafting, saw, planer-belt, and end of shaft.
1	,, ...	Side of planing-machine and driving-pulley.
1	,, ...	Side of planing-machine, mortising-machine, circular saw, and grindstone-belt.
2	,, ...	Sleeve to fit on end of shaft.
2	,, ...	Wheel and pulley.
1	Laundry ..	Machinery.
2	Limeworks ..	Belting.
3	,, ..	Machinery.
2	,, ..	Pulleys and belting.
3	,, ..	Shafting.
2	Machine-shop ..	Band-saws.
2	,, ..	Circular saws.
8	,, ..	Emery wheels.
1	,, ..	End of shafting and fly-wheel.
1	,, ..	Engine and counter-shaft.
1	,, ..	Fly-wheel.
1	,, ..	Fly-wheel and emery wheel.
1	,, ..	Machinery.
1	,, ..	Spur-wheels.
1	Malt-crushing ..	Belting.
1	Manure-drying ..	Belting.
2	,, ..	Belting and slide of fly-wheel.
1	,, ..	Pinion-wheels.
1	Margarine-factory	Belting.
2	Milking	All machinery.
6	,, ...	Belting.
4	,, ...	Belting and side of fly-wheel.
2	,, ...	Engine and belting.
2	,, ...	Fly-wheels and counter-shaft.
1	,, ...	Fly-wheels and floor-shafting.
91	,, ...	Fly-wheels of engine.
10	,, ...	Fly-wheels of engine and pump.
14	,, ...	Fly-wheels, pulley, and belting.
9	,, ...	Machinery.
6	,, ...	Pulleys and belting.
2	,, ...	Pulley and fly-wheel of pump.
4	,, ...	Pump-belting.
6	,, ...	Side of engine and fly-wheel.
2	,, ...	Side of engine and pump.
1	,, ...	Side of engine and shafting.
2	,, ...	Wheels and pulleys.
2	Mortar-mill ..	Fly-wheel, pulley, and belting.
1	Oatmeal-mill ..	Shafting.
4	Oil-engines ..	Automatic starters to fit.
4	,, ..	End of crank-shaft.
3	,, ..	Engines.
86	,, ..	Fly-wheels.
4	,, ..	Fly-wheels and end of shaft.
2	,, ..	Keys in fly-wheels.
3	,, ..	Side of fly-wheel.
2	Pictures ..	Fly-wheels of engine.
1	,, ..	Side of engine.
1	Pipe-making ..	Pulleys.
1	,, ..	Two belts.
1	Planing-mill ..	All machinery.
1	,, ..	Machinery.
1	,, ..	Main and planer belting.
1	,, ..	Planing-machine belt.
1	,, ..	Swing and circular saws.
1	Power lift ..	Belting.
1	,, ..	New safety catches fitted.
1	,, ..	Shafting.
1	,, ..	Two crossbars renewed.
5	Printing	Belting.
1	,, ...	Belting and pulleys.
1	,, ...	Driving-belt.
1	,, ...	Engine.

No. 4.—Return of Notices given to fence or repair Dangerous Parts of Machinery, etc.—*continued.*

Number.	Machinery.	Particulars.
2	Printing	Fly-wheel and belting.
1	,,	Fly-wheel and end of shafting.
1	,,	Fly-wheel and set-screws.
1	,,	Fly-wheel, side of driving-pulley, and press.
3	,,	Fly-wheels of engine.
1	,,	Main driving-belt and pulley.
1	,,	Pinion-wheels of machines.
1	,,	Pulleys.
1	,,	Shafting.
1	,,	Side of engine.
1	,,	Side of printing-machine, driving-belt, and pulley.
1	,,	Spokes of machine.
1	,,	Wheels and motor.
1	,,	Wheels of two machines.
3	Pumping	Belting.
1	,,	Belting and engine.
2	,,	End of shaft.
1	,,	End of shaft, and wheel.
2	,,	Engine.
6	,,	Fly-wheels.
2	,,	Fly-wheels and belting.
1	,,	Machinery.
1	,,	Overhead shafting.
1	,,	Shafting and wheel.
1	,,	Wheel-gearing.
4	Quartz-crushing	Fly-wheels and belting.
2	,,	Main belting, fly-wheel, and machinery.
1	Refrigerating	End of shafting.
1	,,	Engine.
1	,,	Fly-wheels of refrigerator.
1	,,	Machinery.
1	,,	Machinery and belting.
1	,,	Main driving-belt.
1	,,	Pulleys.
2	Ropemaking	Water-wheel, race, and machinery.
1	Saddlery	Side of fly-wheel.
1	Sash and door factory	Band-saw.
1	Ditto	Band-saw and belting.
3	,,	Circular saws.
1	,,	Circular saws and pulleys.
2	,,	Emery wheels.
1	,,	Emery wheels and machinery.
1	,,	Fly-wheel of engine.
1	,,	Machinery.
1	,,	Pulley and belting.
1	,,	Stop to fit to swing-saw.
1	,,	Stop to swing-saw, shafting, and pulley.
1	Sawmill	All machinery and saws.
4	,,	Belting.
1	,,	Belting and drag-saw.
3	,,	Breast-bench saw.
1	,,	Breast-bench saw and machinery.
1	,,	Breast-bench saw and main belting.
6	,,	Circular saws.
6	,,	Circular saws and machinery.
1	,,	Counter-shaft, pulley, and firewood-saw.
1	,,	Emery wheels.
1	,,	Emery wheels and belting.
1	,,	Emery wheels, circular and swing saws.
1	,,	Emery wheels, machinery, and stop to swing-saw.
1	,,	Firewood-saw, belting, and emery wheels.
1	,,	Fly-wheels and belting.
1	,,	Fly-wheels and circular saws.
1	,,	Intermediate shafting.
9	,,	Machinery.
1	,,	Machinery and belting.
3	,,	Machinery, saws, and belting.
1	,,	Main and planer belting.
1	,,	Main driving-belt.
1	,,	Main pulley, end of shaft, and grindstone-pulley.
2	,,	Planing-machine and belting.
1	,,	Pulleys and main belting.
1	,,	Shafting and pulleys.
1	,,	Stops for swing-saw.
1	,,	Water-race, shafting, and belting.
1	,,	Water-wheel and machinery.
1	Seed-cleaning	E d of shafting.
1	,,	Intermediate shaft.
2	,,	Machinery.
1	Sewing-machines	Intermediate shaft.
3	Shearing	Belting.
1	,,	Belting and end of shaft.
1	,,	Emery wheels.
1	,,	End of shafting.
1	,,	Engine, and bearing to fit on end of shaft.
1	,,	Engine and belting.
6	,,	Fly-wheels.
2	,,	Fly-wheels and belting.
3	,,	Fly-wheels, belting, and tool-grinder.
2	,,	Fly-wheels, end of shafting, and tool-grinder.
4	,,	Grinders.
2	,,	Grinders and belting.
1	,,	Main belting, pulley, and fly-wheel.
2	,,	Pulleys and belting.
1	,,	Side of water-wheel.
2	Shop-tools	Belting.
1	,,	End of shafting.
1	,,	Fly-wheel and belting.
1	,,	Fly-wheel and emery wheels.
3	,,	Machinery.
1	,,	Main belt and intermediate shaft.
1	,,	Pulley and driving-belt.
1	,,	Side of fly-wheel and cross-shafting.
2	Station-work	Belting.
2	,,	Belting and circular saws.
1	,,	Clutch and belting.
1	,,	End of clutch.
3	,,	Engine.
6	,,	Fly-wheels.
10	,,	Fly-wheels and belting.
1	,,	Fly-wheels, belting, and saws.
1	,,	Fly-wheels, pulleys, and belting.
1	,,	Machinery and belting.
1	,,	Pulley, belting, and circular saw.
1	,,	Pump and engine.
1	Steam-crane	Chains annealed.
1	Stone-crushing	Belting and fly-wheel of stone-crusher.
1	,,	Driving-belt.
1	,,	Driving-belt and pulley.
1	,,	Fly-wheel of engine.
1	,,	Rail to fit around engine.
1	,,	Shafting, pulleys, and belting.
1	,,	Wheels of crusher.
1	Tilemaking	Pug-mill belting.
1	Tobacco-factory	Belting.
3	Turnip-pulping	Machinery.
1	Veneer-works	Fly-wheel.
1	Ventilating	Pulley and belting.
1	Wire-working	Gearing of three machines.
1	,,	Shafting.
1	Wood-working	Band-saw.
1	,,	Band and circular saws.
4	,,	Belting.
1	,,	Belting and emery wheels.
1	,,	Belting and machinery.
1	,,	Belting and shafting.
4	,,	Circular saws.
1	,,	Circular saws and pulleys.
1	,,	Circular saws and side of planer.
1	,,	Counter-shaft.
1	,,	Driving-belt and two pulleys.
1	,,	Driving-pulley and two belts.
4	,,	Emery wheels.
1	,,	Emery wheels and drum.
1	,,	Emery wheels and saw.
1	,,	End of shafting.
1	,,	Engine.
4	,,	Fly-wheels.
4	,,	Fly-wheels and belting.
2	,,	Fly-wheels and machinery.
1	,,	Fly-wheels, pulleys, main belting, and saw.
1	,,	Fly-wheels, shafting, and end of planing-machine.
1	,,	Goose-saw.
1	,,	Intermediate shafting.
3	,,	Machinery.
1	,,	Machinery and set-screws.
1	,,	Main belting.
1	,,	Motor and belting.
1	,,	Shafting.
1	,,	Two belts.
1,025	Total.	

No. 5.—Return of Non-fatal Accidents in connection with Machinery during the Financial Year ended the 31st March, 1913.

Name and Address of Owner.	Description of Machinery.	Name and Age of Person injured.	Date of Accident and Nature of Injury.	Cause of Accident, and Remarks.
H. B. Kirk, Timaru	Brickmaking	James E. Thomas; 28 years	2nd April, 1912; arm injured	Thomas's arm was caught by the knives of the machine while he was attempting to extract a broken knife. His arm was severely lacerated and broken at the wrist.
Robertson and Co. (Limited), Wellington	Circular saw	C. Chapman; 16 years	3rd April, 1912; thumb injured	Chapman lost the point of his right thumb through contact with the saw.
David Murray and Co., Wanganui	Lathe	Thomas Peters; 60 years	9th April, 1912; hand injured	Peters got the back of his left hand lacerated through its being jammed between the rest of the lathe and the piece of machinery he was turning.
Seagar Bros., Auckland	Main line-shafting	E. Q. Low; 16 years	15th April, 1912; collar-bone and leg injured	While engaged oiling the bearings of the shafting, Low's clothes were caught by the bolts of the shaft-coupling. He was wound round the shaft and had his collar-bone fractured and one leg severely cut.
James Paterson, Te Puke	Flax-mill	Solomon Oketopo; 18 years	19th April, 1912; arm lost	By some means Oketopo allowed his left arm to be drawn into the scutcher.
Steel and Co., Dunedin	Shafting for driving sewing-machines	Jessie Clarkson; 21 years	19th April, 1912; hair torn out	Clarkson was leaning over to pick up something under the machine when her hair was caught by the revolving shaft.
The Premier Joinery Manufacturing Company (Limited), Auckland	Rip-saw	W. Yates; 18 years	22nd April, 1912; hand injured	When working at the saw Yates's hand came into contact with it.
Alexander Murdoch, Dunedin	Sieving	George Murdoch; 38 years	26th April, 1912; arm fractured	Murdoch was putting the belt on the machine when his left arm was caught between the belt and the pulley.
Aulsebrook and Co., Christchurch	Power confectionery-cutting	H. Metcalf; 21 years	9th May, 1912; hand injured	Metcalf was attempting to pick up something under the table below the moving bed of the machine when his hand was caught between the moving bed and frame.
Australian Mutual Provident Society, Dunedin	Electric lift	Joseph Haig; 74 years	10th May, 1912; back and legs injured	Haig opened the doors of the lift-well at the bottom flat, and, thinking that the cage was there, stepped out and fell to the bottom of the well. His back and legs were badly bruised.
A. and T. Burt (Limited), Dunedin	Boilermakers' plate-shears	Andrew Bayliss; 16 years	14th May, 1912; fingers injured	Bayliss's left hand was caught between a plate and the machine. The second and third fingers of his left hand were crushed.
Chamberlain and Laurie Bros., Orawia	Grindstone	J. W. Laurie; 36 years	14th May, 1912; face and chest injured	Laurie was grinding knives on the grindstone when it flew in pieces. Some of the fragments struck him on the face, nose, and chest.
The Champion Company (Limited), Wellington	Sugar-disintegrating mill	Charles Mardell; 20 years	18th May, 1912; leg crushed	Mardell was caught in a belt and drawn on to the shaft. His leg was so badly crushed that it had to be amputated above the knee.
Turnbull and Jones (Limited), Wellington	Motor on electric elevator	Thomas Edwards; 21 years	21st May, 1912; leg injured	When working on the elevator Edwards's leg came into contact with the moving parts of the motor and was lacerated.
McCallum and Co., Invercargill	Hauling-engine	Richard Lloyd; 28 years	30th May, 1912; leg broken	Lloyd fell from the engine while it was moving and had his leg broken.
Leyland-O'Brien Timber Company (Limited), Auckland	Recutting-saw	Joseph Fischer; 21 years	3rd June, 1912; finger cut	Fischer was oiling the cogs while they were in motion under the saw-bench, when his finger was caught by them.
Alliance Box Company (Limited), Dunedin	Circular saw	Robert Godby; 18 years	18th June, 1912; fingers injured	When feeding the saw Godby's left hand slipped and came into contact with the saw. Three of his fingers were slightly cut.
Powley and Keast, Dunedin	Circular saw	George Watt, 25 years	20th June, 1912; fingers cut	Watt's hand came in contact with the saw.
The Champion Company (Limited), Wellington	Bean-husker	E. Zoukra; 20 years	24th June, 1912; finger injured	Zoukra inadvertently placed his left hand on the moving cogs of the machine.
Aulsebrook and Co., Christchurch	Shaft in gum-jube department	Thomas Douglas; 16 years	25th June, 1912; body bruised	A set-screw on a shaft-coupling caught the pocket of Douglas's coat and he was drawn in towards the shaft.
D. Goldie and Sons, Auckland	Box crosscut saw	P. Skerratt; 34 years	26th June, 1912; thumb cut	Skerratt's thumb was caught by the saw.

S. Kirkpatrick and Co., Nelson ..	Tinmaking ..	J. Huffam ; 25 years ..	28th June, 1912 ; finger injured	Huffam's right hand was accidentally caught in the machine.
D. Goldie and Sons, Auckland ..	Circular saw ..	C. Renner ; 46 years ..	29th June, 1912 ; finger cut ..	Renner's finger came in contact with the saw.
New Zealand Portland Cement Company (Limited), Auckland	Pulverizing-mill ..	A. Grimshaw ; 24 years ..	2nd July, 1912 ; face and body injured	While working at the mill Grimshaw's foot slipped and he fell against the mill, which was in motion.
D. Goldie and Sons, Auckland ..	Circular saw ..	J. Gaffin ; 43 years	11th July, 1912 ; finger cut ..	Gaffin's left hand slipped when he was tightening the saw-guide with a spanner. His hand came into contact with the saw.
Henry Weston, New Plymouth ..	Printing	James T. Hoskin ; 37 years ..	12th July, 1912 ; fingers crushed..	When feeding the paper through the rollers, Hoskin allowed his fingers to be caught between them.
James McAndrew and Co., Paeroa ..	Woodworking ..	Sidney Prisk ; 22 years ..	13th July, 1912 ; arm injured ..	While working at the boring-machine Prisk's shirt-sleeve was caught in the bit and his right arm was drawn into the machinery.
A. and T. Burt (Limited), Dunedin ..	Turret lathe ..	John Tunnage ; 15 years ..	16th July, 1912 ; thumb hurt ..	Tunnage's left hand was caught between rest and chuck.
Hal Goodacre, New Plymouth ..	Boot-slugging ..	Joseph Claffey ; 20 years ..	17th July, 1912 ; finger crushed ..	When oiling the machine in motion Claffey's finger was caught in the cogs.
Harraway and Sons, Dunedin ..	Flour-milling ..	A. Harraway ; 38 years ..	17th July, 1912 ; fingers crushed	Harraway opened the door of the roller-mill to clean the casing, when the fingers of his left hand were caught in the machine and crushed.
Sam Aburn and Sons, Dunedin ..	Woodworking ..	James Robertson ; 26 years ..	22nd July, 1912 ; fingers cut ..	When sawing a piece of timber Robertson's left hand slipped and came in contact with the saw.
W. Takle and Co., Newmarket ..	Moulding ..	William Johns ; 37 years ..	24th July, 1912 ; hand injured ..	Johns's foot slipped on a piece of wood while he was working at the machine. He put out his right arm to save himself, when his hand was caught by the moving cogs of the machine.
Leyland-OBrien Timber Company (Limited), Auckland	Circular saw ..	S. Parkinson ; 21 years ..	27th July, 1912 ; thumb cut ..	In trying to remove a chip from the saw before it had stopped Parkinson's left hand came into contact with the saw.
W. Sutherland and Co. (Limited), Onehunga	Shafting	Edward Shortt ; 48 years ..	3rd August, 1912 ; ankle broken	Shortt was adjusting a belt on a pulley when his clothing became entangled with the moving shaft. He was drawn round the shafting and thrown clear of it on to the floor. His left ankle was broken and he sustained many bruises, besides being much shaken.
Aulsebrook and Co., Christchurch ..	Starch-printing ..	E. Hodgkinson ; 17 years ..	3rd August, 1912 ; finger injured	Hodgkinson was cleaning the machine when his left hand was caught by part of it.
Leyland-OBrien Timber Company (Limited), Auckland	Rip-saw	W. Hibbs ; 24 years ..	8th August, 1912 ; finger cut ..	Hibbs's finger came into contact with the saw.
Bryant Bros., Rai Falls	Emery wheel ..	Frank Flower ; 35 years ..	8th August, 1912 ; jaw fractured and eye lost	While grinding an axe, the axe turned and jammed the emery wheel. The wheel broke and part of it struck Flower on the upper jaw and eye.
F. H. Reilly, Wellington	Surface and thicknessing	William Kennedy ; 65 years ..	15th August, 1912 ; fingers lost ..	Kennedy tried to remove some shavings from the machine with his left hand, instead of using a stick, when his hand came into contact with the knives of the machine, cutting off three fingers of the left hand.
A. and T. Burt (Limited), Dunedin ..	Lathe	Victor Hay ; 18 years ..	19th August, 1912 ; finger bruised	When working at the lathe Hay's left forefinger was caught by the chuck.
Alliance Box Company (Limited), Dunedin	Circular saw ..	A. Robertson ; 18 years ..	22nd August, 1912 ; finger cut ..	When sawing a piece of timber Robertson's left hand slipped and came into contact with the saw.
The Otago Hospital and Charitable Aid Board, Dunedin	Hydraulic lift ..	C. D. Vincent ; 23 years ..	23rd August, 1912 ; finger injured	Instead of shutting the door before releasing the lift Vincent tried to shut it after it had started. His hand was crushed between the door of the lift and the floor.
Homebush Brick and Coal Company, Glentunnel	Clay-grinding pan..	R. H. Luke ; 35 years ..	23rd August, 1912 ; fingers lost..	Luke's right hand was caught between the scrapers and the bottom of the pan while the machine was working, and three fingers were taken off.
Aulsebrook and Co., Christchurch ..	Power mincing ..	A. McKenzie ; 16 years ..	29th August, 1912 ; fingers cut off	McKenzie was engaged mincing figs when he used his right hand instead of a stick to push them into the machine. His hand was caught by the mincer and three fingers cut off.

No. 5.—Return of Non-fatal Accidents in connection with Machinery, etc.—*continued.*

Name and Address of Owner.	Description of Machinery.	Name and Age of Person injured.	Date of Accident, and Nature of Injury.	Cause of Accident, and Remarks.
Lyttelton Co-operative Bread Company (Limited), Lyttelton	Dough-mixer ..	F. G. Norton; 43 years ..	30th August, 1912; fingers injured	Norton's left hand was caught by the mixer.
Stewart and Werner, Paeroa.. ..	Dough-mixer ..	John Casley; 59 years ..	4th September, 1912; hand lost..	Casley was attempting to pull some dough out of the machine when in motion, when his hand was cut off by the knives.
Clutha Timber and Hardware Company, Balclutha	Circular saw ..	H. Sinclair; 19 years ..	9th September, 1912; finger injured	While sawing timber Sinclair's hand was caught between the timber and bench, injuring the left forefinger.
Southern Cross Biscuit Company (Limited), Wanganui	Dough-mixer ..	William Jonson; 25 years ..	10th September, 1912; hand injured	Jonson's hand came into contact with the machine when in motion.
Clutha Timber and Hardware Company, Balclutha	Circular saw ..	S. Latta; 30 years	16th September, 1912; fingers injured	Latta's hand came into contact with the saw.
A. and T. Burt (Limited), Dunedin ..	Band-saw ..	Frank Dow; 16 years ..	19th September, 1912; finger injured	Dow's right hand came into contact with the saw in motion, cutting his right forefinger.
New Zealand Paper-mills (Limited), Auckland	Paper-making ..	H. Blythe; 39 years ..	20th September, 1912; hand injured	Blythe's right hand was caught between the scraper and pan while in motion.
New Zealand Paper-mills (Limited), Auckland	Reeler	H. Lingard; 37 years ..	22nd September, 1912; fingers injured	Lingard's fingers got between the rollers of the machine.
Neilson, Murray, and Fredric, Wellington	Punching and shearing	Joseph Haylock; 45 years ..	27th September, 1912; hand injured	Haylock's left hand was caught by the cogs of the machine and received such injuries that it had to be amputated.
A. and T. Burt (Limited), Dunedin ..	Turret lathe ..	David MacEwan; 16 years ..	9th October, 1912; finger injured..	The forefinger of MacEwan's left hand was caught between the lathe-rest and the chuck.
William Cable and Co., Kaiwarra ..	Circular saw ..	H. Gemmell; 18 years ..	14th October, 1912; abdomen injured	Gemmell was sawing timber when a piece flew off and struck him on the abdomen.
Jacob Helmkey, Dunedin	Meat-mincer ..	A. Burton; 16 years ..	17th October, 1912; fingers injured	When working at the mincer Burton's left hand was caught in the machine. The middle finger was cut off and the forefinger injured.
J. B. Thomson and Son, Dunedin ..	Circular saw ..	C. B. Thomson; 38 years ..	30th October, 1912; hand injured	Thomson's right forefinger and thumb were injured while working at the saw.
Alliance Box Company (Limited), Dunedin	Buzz planer ..	Robert Johnstone; 35 years ..	7th November, 1912; finger injured	Johnstone's left hand came into contact with the knives of the machine.
Leggat and Campbell, Houipapa ..	Sawmill	R. Poultenay; 32 years ..	9th November, 1912; shoulder and ribs injured	The piece of wood Poultenay was sawing was caught by the saw and thrown back on to him, causing injury to his shoulder and ribs.
New Zealand Powell Wood Process (Limited), Rangataua	Saw-bench ..	S. G. Walsh; 48 years ..	13th November, 1912; fingers injured	Walsh was oiling one of the bearings while the saw was in motion, when his right hand came in contact with the saw.
Bartholomew Land and Timber Company (Limited), Ngatira	Steam-feed of band-saw carriage	Charles Black; 38 years ..	14th November, 1912; hand injured	The steam was shut off the engine while Black was oiling the slides. The engine suddenly started through leakage at the stop-valve, when Black's hand was crushed by it.
Thomas Ballinger and Co. (Limited), Wellington	Electric lift ..	A. Jackson; 21 years ..	14th November, 1912; back and hands injured	The breaking of a casting of the overhead gear caused the lift-cage to run down to the bottom of the lift-well, from a height of about 18 ft., whilst partly loaded. Jackson was in charge of the lift, and in order to minimize his fall he grasped the rope of the starting and stopping gear and slid down inside the cage, injuring his back and burning his hands by the ropes running through them.
A. and T. Burt (Limited), Dunedin ..	Turret lathe ..	W. A. E. Fail; 20 years ..	14th November, 1912; finger cut	When working at the lathe the forefinger of Fail's left hand came in contact with the tool.
Rich and Jeffreys, Auckland ..	Planing	A. P. Cooper; 46 years ..	19th November, 1912; fingers lost	Cooper's left hand slipped and came in contact with the knives of the machine, his first and fourth fingers being cut off.

Ward Bros., Ahuriri Flat	Circular saw	D. W. Thompson; 27 years	26th November, 1912; scalp injured	Thompson was working in a stooping position at the saw and the hat he had on obscured his vision. His head came in contact with the saw, causing a scalp wound.
D. Goldie and Sons, Auckland	Sawmill	G. Buffert; 27 years	28th November, 1912; finger cut	Buffert accidentally put his finger on the saw while it was in motion.
David Bone, Auckland	Upright spindle-shaper	H. Shorth; 65 years	20th December, 1912; thumb cut	Shorth's hand slipped off the material he was working, and his thumb came into contact with the knives.
Murrays Limited, Invercargill	Body-former for making milk-tins	A. Whyte; 21 years	28th December, 1912; fingers injured	Whyte's fingers were caught in the folders of the machine while it was in motion.
A. H. Webb, Christchurch	Planer	J. J. Butter; 20 years	7th January, 1913; finger lost	Butter allowed his finger to come in contact with the knives of the machine while in motion.
Greymouth Evening Star Company, Greymouth	Printing	H. Pring; 16 years	7th January, 1913; hand injured	When working at the press Pring's hand was caught by it and crushed.
J. M. Mennie (Limited), Auckland	Tinmaking	E. Hopkinson; 16 years	11th January, 1913; finger injured	While feeding the machine Hopkinson's right hand was caught in it, and his little finger was crushed.
McIndoe and Tanner, Wrey's Bush	Flax-mill	Thomas Dawson; 23 years	14th January, 1913; arm injured	Dawson's arm was drawn into the scutcher. The hand and forearm were so severely injured that the arm had to be amputated a little below the elbow.
R. H. Stark, Auckland	Goose-saw	Fred Scott; 15 years	21st January, 1913; thigh injured	The balance-weight dropped while Scott was working at the saw, causing it to come forward.
P. and D. Duncan (Limited), Christchurch	Lathe	C. E. Mander; 18 years	21st January, 1913; body injured	Mander's sleeve was caught by the working parts of the lathe, and his shoulder and back were bruised.
New Zealand Portland Cement Company, Auckland	Automatic bagging	Pera Kepa; 24 years	21st January, 1913; arm injured	In attempting to put a belt on a pulley in motion Kepa's forearm was crushed between the pulley and the belt.
Murrays Limited, Invercargill	Press and die	Robert Grieve; 16 years	29th January, 1913; finger crushed	Grieve's right second finger came under the die while he was working at the machine.
Kauri Timber Company (Limited), Auckland	Drag-bench	Thomas Kemble; 57 years	5th February, 1913; fingers lost	While Kemble was adjusting the guide-pins the spanner he was using slipped and his right hand came into contact with the saw, three fingers being severed.
P. and D. Duncan (Limited), Christchurch	Pig-iron breaker	William Evans; 23 years	6th February, 1913; finger injured	Evans, by some means, got his right forefinger into the iron-breaker.
Murrays Limited, Invercargill	Power press for stamping milk-tins	A. H. Whyte; 31 years	10th February, 1913; finger injured	Whyte's right forefinger was caught by the descending die of the machine.
Empire Box-making Company (Limited), Wellington	Die-punching	O. H. Dillner; 25 years	19th February, 1913; finger injured	Dillner's foot slipped on to the starting-treadle, causing the head of the machine to come down on the first finger of his right hand.
William Nees and Sons (Limited), Dunedin	Circular saw	James McDonald; 22 years	27th February, 1913; fingers injured	When sawing a piece of timber McDonald slipped and his hand came into contact with the saw.
Topliss Bros., Addington	Lathe	N. L. Thompson; 19 years	27th February, 1913; thumb bruised.	Thompson put the thumb of his right hand between the work and the moving slide.
Murrays Limited, Invercargill	Power press for milk-tins	M. Crow; 14 years	27th February, 1913; finger injured	Crow was trying to remove something with his right hand when he accidentally touched the starting-treadle with his foot, causing the punch to descend on his finger.
Empire Box-making Company (Limited), Wellington	Box-staying	Mary Grondin; 16 years	29th February, 1913; fingers injured	Grondin's left hand was caught in the moving parts of the machine, and she had two fingers bruised.
William George Bassett, Wanganui	Power grindstone	A. Saunders; 17 years	28th February, 1913; fingers injured	Saunders was grinding a chisel, when the forefinger of his left hand was caught between the stone and the chisel and bruised.
Marriott, Brown, and Wicks, Dunedin	Drilling	H. J. Abernethy; 15 years	3rd March, 1913; finger injured	While drilling a marble switchboard Abernethy's right hand came into contact with the gearing of the machine, and the second finger was crushed.
Taylor and Oakley (Limited), Christchurch	Hoop-iron cutting	W. G. Young; 20 years	3rd March, 1913; finger injured	Young was feeding the hoop iron in when the handle slipped and the shears came down on his finger.

No. 6.—Return of Fatal Accidents in connection with Machinery during the Financial Year ended the 31st March, 1913.

Name and Address of Owner.	Description of Machinery.	Name and Age of Person injured	Date of Accident and Nature of Injury.	Cause of Accident, and Remarks.
Taylor and Oakley (Limited), Christchurch	Spouting ..	William Faas; 16 years ..	7th March, 1913; finger injured..	The cutter of the machine came down on Faas's finger.
Wellington Woollen-manufacturing Company (Limited), Petone	Woollen-mill ..	William Brown; 35 years ..	18th March, 1913; foot injured ..	A pulley slipped off the end of a shaft and struck Brown's foot, cutting it badly.
The Drury Fireclay, Brick, and Potteries (Limited), Drury	Main counter-shaft	Job Milson; 51 years ..	29th May, 1912; bruised internally	Milson stood on a ladder to examine the centre bearing grease-cup of the main counter-shaft. The ladder slipped and threw him against a pulley, which was clamped on the shaft by a strap with projecting lugs. These lugs caught the deceased's clothing, and he was wound round the revolving shaft. He was severely injured, and death occurred shortly after the accident.
Kirkcaldie and Stains (Limited), Wellington	Electric lift ..	Saul Garshook	13th July, 1912; crushed ..	Garshook pulled the wrong control-rope, causing the lift to ascend. It caught him between the cage-floor and the top of the door, causing injury to his ribs, skull, and legs.
Andersons Limited, Lyttelton ..	Main shaft ..	Charles Muschamp; 32 years..	20th July, 1912; broken limbs ..	Muschamp was standing on a ladder mending a belt when his clothing was caught by the revolving shafting. He was whirled round several times and instantaneously killed.
The Taupo Totara Timber Company (Limited), Putaruru	Sawmill	Ihaia Tees; 27 years ..	28th September, 1912; crushed ..	Tees was attempting to put a belt on a pulley while the machinery was in motion, when his clothing was caught by the shafting, winding him round it. He was killed outright.
Thomas Ballinger and Co. (Limited), Wellington	Shafting	Arthur Pudney; 37 years ..	31st October, 1912; internal injuries	Pudney was working in the engine-room near a revolving shaft, when his clothing was caught by it. He was carried round several times with the shafting, receiving such injuries as to cause death shortly after the accident.
Warea Co-operative Dairy Company (Limited), Warea	Refrigerating ..	Margaret Mary Cochrane; 2 years	23rd November, 1912; skull fractured	The child's dress was caught by the end of the crank-shaft and she was wound round it, causing such injuries that her death occurred an hour and a half afterwards.
Auckland Gas Company (Limited), Auckland	Coke-conveyor ..	Thomas Nickels; 24 years ..	6th January, 1913; abdomen injured	Nickels was caught in the machine while he was oiling it, and was fatally injured.
D. T. McCullough, Staveley	Oil-engine ..	R. J. McCullough; 24 years ..	11th January, 1913; head injured	In trying to put a belt on the engine while it was in motion McCullough's legs were entangled in it. He was drawn round the shaft and received severe injuries to his head.
E. W. Mills and Co. (Limited), Wellington	Electric goods-lift..	James Hanratty	5th February, 1913; crushed ..	Hanratty was caught between the cage-floor and the arch in the masonry of the lift-well, and was badly crushed in the abdomen, death being instantaneous.

No. 7.—Return of Engineers to whom Extra First-class Certificates of Competency have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: Extra First-class Stationary, Competency.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1912.			1913.	
John Eric Lipscombe	Aug. 15	84	Charles Waring Somes Saxton ..	Feb. 13	86
	1913.		Elliott Fleming	,,	87
Douglas Gordon Jack	Feb. 13	85			

No. 8.—Return of First-class Stationary-engine Drivers to whom Certificates of Service have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: First-class Stationary, Service.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1912.			1913.	
Samuel Dickey	June 6	1697	Frederick Ross	Feb. 13	1704
John David Urquhart	,,	1698	Wallace Gardner	,,	1705
George Samuel Arkle	Aug. 15	1699	William Parkes	,,	1706
Edward Yates Bolton	,,	1700	Alfred George Lovell Bliss	,,	1707
Robert McDowell	Nov. 22	1701	Edward Robert Stone	Mar. 19	1708
William McFarlane	,,	1702	Charles Robert Dunstan	,,	1709
Charles Doherty	,,	1703			

No. 9.—Return of First-class Stationary-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: First-class Stationary, Competency.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1912.			1912.	
William McDonald	June 6	1559	Dougal McCormick Kay	Nov. 22	1590
Kenneth Alexander Ross	,,	1560	William Maxwell Lawson	,,	1591
Ernest Charles Collins	,,	1561	William John McCammon	,,	1592
Donald Gillies	,,	1562	Charles Waring Pickles	,,	1593
Jacob Feickert	,,	1563	John Joseph Quinn	,,	1594
Herbert John Jones	,,	1564	Robert John Davidson	,,	1595
Charles William Pritchard	,,	1565	Albert Anthony Hastings	,,	1596
Aaron Griffiths	,,	1566	Thomas William Sherwood	,,	1597
George Henry Butler	,,	1567	William Webster	,,	1598
William John Morton	,,	1568	William Curreen	,,	1599
William Snedden	,,	1569	Robert Blackhall Stewart	,,	1600
Norman Levi Woods	,,	1570	John Henry Urquhart	,,	1601
Charles Waring Somes Saxton ..	,,	1571	Samuel Patrick Chapman	,,	1602
John Mangan Colebrook	,,	1572	William Griffiths	,,	1603
Edward Francis Jones	,,	1573	Vincent James Pfeifer	,,	1604
John Grant Stephens	,,	1574	Daniel Tyson Satterthwaite	,,	1605
Edward Wigney	Aug. 15	1575	William Leonard Parker	,,	1606
Ernest Winhall	,,	1576		1913.	
James Watt	,,	1577	Gray Russell Hunter	Feb. 13	1607
Israel Webster	,,	1578	William Botham White	,,	1608
James Donaldson Caldwell	,,	1579	Albert Edward Turner	,,	1609
Herbert Henry Brown	,,	1580	Charles Cecil Harris Friend	,,	1610
Albert Currie	,,	1581	Alexander Aitken	,,	1611
Cyril Probyn Berridge	,,	1582	Gordon Dewar	,,	1612
Isaac Simpson	Nov. 22	1583	Edgar Walter Dyer	,,	1613
John Allan McEachen	,,	1584	Robert Thomas Bruce Mackie ..	,,	1614
Charles Henry Lemin	,,	1585	Arthur Heir	,,	1615
William Dodd	,,	1586	William Shepherd	,,	1616
John Oxenham	,,	1587	James Arthur Fielding	,,	1617
John Frederick Tollan	,,	1588	George Henry Hunt	,,	1618
Arthur Ernest Toyer	,,	1589	John Foote	Mar. 19	1619

No. 10.—Return of Second-class Stationary-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: Second-class Stationary, Competency.

Name of Person.	Date of Issue.	No.
	1912.	
Alfred Arnold	June 6	3586
James Sloan Fraser	,,	5387
Partick Lawrence Johnston	,,	3588
Joseph Charles Thomas Smith	,,	3589
Alfred Christian Adier Hansen	,,	3590
George Stewart	,,	3591
Herbert Henry Knowles	,,	3592
Leslie Clifford Tomlinson	,,	3593
Robert Welsh	,,	3594
James Wicks	,,	3595
Thomas William Winstanley	,,	3596
Frank Cecil Young	,,	3597
Hilton Broadbent	,,	3598
Ernest Fowler	,,	3599
Alfred Fowler	,,	3600
Charles Lewis Stapley	,,	3601
Arthur Henry Timms	,,	3602
James John Keene	,,	3603
William Henry Hill Downer	,,	3604
Charles John Dew	,,	3605
William Johnston	,,	3606
Thomas Lawlor	,,	3607
Arthur Manley	,,	3608
Hugh Spencer Douglas McCullum	,,	3609
Gilbert George William Ranger	,,	3610
Edward Roberts	,,	3611
Neil Souness	,,	3612
Thomas Wilfred Taylor	,,	3613
William Alfred Ward	,,	3614
John Catchpole	,,	3615
John Hodson, jun.	,,	3616
Thomas Carley	,,	3617
Robert Henderson	,,	3618
George Patton	,,	3619
Alrick Edward William Stevens	,,	3620
Bertram Badham	,,	3621
William Harold Raymond Babe	,,	3622
James Hetherington	,,	3623
Hugh Hughes	,,	3624
Roy Crofton Hay Smith	,,	3625
William Morgan	,,	3626
Lewis Morgan	,,	3627
Arthur Thompson Hughes	,,	3628
William Webster	,,	3629
Joseph Whitefield	,,	3630
Arthur Robinson	,,	3631
Charles Reuben Middleditch	,,	3632
Edgar Hildebrand	Aug. 15	3633
William Henry McFarlane	,,	3634
Thomas King	,,	3635
Joseph John Henry Jenkin, jun.	,,	3636
Thomas Adrian Cloughley	,,	3637
James Walker	,,	3638
Patrick Gunn	,,	3639
Percy Henry Moreland	,,	3640
James McCallum	,,	3641
John Vercoe	,,	3642
Thomas Sneddon Gardiner	,,	3643
Herbert Hamilton Evans	,,	3644
Albert Anthony Hastings	,,	3645
Henry Archibald Brown	,,	3646
James Hughes	,,	3647
Samuel O'Neil	,,	3648
James Cook	,,	3649
James Compton Field	,,	3650
Fred Barclay	,,	3651
Joseph Bower Sawers	,,	3652
Richard James Kerr	,,	3653
Francis James Chave	,,	3654
George Robert Davidson	,,	3655
Michael Murray	,,	3656
William Stephens	,,	3657
Thomas Robinson Kirk	,,	3658
Joseph John Lawrence King	,,	3659
Robert Andrew Lilley	,,	3660
Herbert Richard Spicer	,,	3661
Frederick Thomas Stone	,,	3662
Arthur Wood	,,	3663
Frank John Nettleingham	,,	3664
Frederick Charles Cornwell	Aug. 15	3665
Charles Dickson	,,	3666
Horace Edward Rowlands	,,	3667
Miles Pollitt Schofield	,,	3668
Thomas Wadsworth	,,	3669
John Vincent Lane	,,	3670
William Troughear	,,	3671
Thomas Finlayson	,,	3672
Alfred Harris	,,	3673
Edward Mason	,,	3674
Harold Stanley Anderson	,,	3675
Arthur Burrows	,,	3676
Albert Edward Victor Denize	,,	3677
David Hull	,,	3678
George Henry Hunt	,,	3679
James Benney Jenkin	,,	3680
Viggo Valdemar Jergensen	,,	3681
Hylton Onslow Judd	,,	2683
John Aloysious Leslie	,,	3683
Paul Gerhard Michalsen	,,	3684
Thomas Rupert McCarthy	,,	3685
William Norman Glyn Parry	,,	3686
Robert Riddell	,,	3687
	1913.	
Arthur John Horton	Feb. 13	3688
	1912.	
Arthur Forbes Murray	Aug. 15	3689
Albert Cyril White	Nov. 22	3690
Samuel Kilpatrick	,,	3691
John Harper	,,	3692
Herbert Frederick Andrews	,,	3693
Joshua Frederick Nicholls	,,	3694
John Henry Coulter	,,	3695
Arthur Hey	,,	3696
Henry Parrant	,,	3697
John Francis Sinclair	,,	3698
Reginald Autheman	,,	3699
Henry Burge	,,	3700
William Charles Rowe	,,	3701
Alexander Beere	,,	3702
Duncan McRae	,,	3703
James Forsyth Sinclair	,,	3704
Isaac Bates	,,	3705
William Wilson	,,	3706
William Leslie	,,	3707
Harold Clive Frame	,,	3708
Sydney George Jones	,,	3709
John Wright, jun.	,,	3710
Frederick Tombs	,,	3711
Edward Colin Cheshire	,,	3712
Victor William Henry Dawson	,,	3713
William Howard Eustace	,,	3714
Horace James Heath	,,	3715
William McCulla Heath	,,	3716
Conrad Lewis Holland	,,	3717
Thomas Cyril Richardson	,,	3718
John Leonard Rhodes	,,	3719
Albert Morgan Clifton	,,	3720
George Edwin Strother	,,	3721
Joseph Bergin	,,	3722
Norman Franklyn Augustine Porter	,,	3723
Joseph William Hanson	,,	3724
Victor William Brown	,,	3725
William Henry Fry	,,	3726
William Charles Morrison	,,	3727
William Henry Payne	,,	3728
Francis William Simmers	,,	3729
Harry Ernest Wilkinson	,,	3730
Roy Robert Campbell	,,	3731
Henry Leonard Webb	,,	3732
Fredrick Gustov Hahn	,,	3733
Richard John Wearn	,,	3734
	1913.	
Henry Joseph Bowman	Feb. 13	3735
Charles Edward Dunn	,,	3736
Albert Ernest Foster	,,	3737
David Martin	,,	3738
Frederick Patrick Jones	,,	3739
Joseph William Thomas	,,	3740

No. 10.—Return of Second-class Stationary-engine Drivers, etc.—*continued.*

Class of Certificate: Second-class Stationary, Competency—continued.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1913.			1913.	
Albert George Wilkes	Feb. 13	3741	Thomas Samuel Brown	Feb. 13	3759
Arthur Roy Smith	,,	3742	James Percival John	,,	3760
Joseph Taylor	,,	3743	Joseph Jenkin	,,	3761
Adam Kilpatrick	,,	3744	Robert McClure	,,	3762
John Robertson	,,	3745	John Quin	,,	3763
John Gundersen	,,	3746	Charles Wilkie McMurray	,,	3764
John William Curran	,,	3747	Walter George	,,	3765
George Roberts	,,	3748	Albert Holden	,,	3766
Percival Morley	,,	3749	Fred King	,,	3767
Andrew Emil Hackell	,,	3750	Norman Berry Smith	Mar. 19	3768
Donald William Ross	,,	3751	Robert Isbister	,,	3769
Philip Drummond Anderson	,,	3752	John Murphy	,,	3770
Alfred Ernest Pearson	,,	3753	Carl Jensen Hende	,,	3771
William Hawkes	,,	3754	Ernest Alfred Robinson	,,	3772
James McLaughlin	,,	3755	Daniel Donovan	,,	3773
Alexander Paterson Rennie	,,	3756	Henry Burrows	,,	3774
Muir Templeton	,,	3757	John McNair	,,	3775
Donald McKay	,,	3758	Thomas Gordon	,,	3776

No. 11.—Return of Locomotive and Traction Engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: Locomotive and Traction, Competency.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1912.			1912.	
Percy Harold Sutton	June 6	2563	Philip Henry Best	Aug. 15	2611
William Cashmere	,,	2564	Andrew Victor Johnson	,,	2612
Albert Edward Killip	,,	2565	Walter Hart Edlin	,,	2613
Ernest Fergusson	,,	2566	Albert Lawrence Knowsley	,,	2614
Carl Edward Uddstrom	,,	2567	David Andrew Murray	,,	2615
James Stuart	,,	2568	Alister Harry Robert Hunt	,,	2616
Allan John Atchison	,,	2569	Peter McMenamin	,,	2617
Albert John Hutchinson	,,	2570	John William Francis Pope	,,	2618
John Alexander Milne	,,	2571	William Henry Hodgson	,,	2619
William Edinborough Chamberlain	,,	2572	George Thomas Stringer	,,	2620
John Currie	,,	2573	Percy Arthur Pilcher	,,	2621
Albert Cridge	,,	2574	Alfred John Adams	,,	2622
George Warner Jackson	,,	2575	Conway Braddell	,,	2623
Thomas George Aston	,,	2576	Arthur George Burt	,,	2624
John William Rossiter	,,	2577	William Clifton	,,	2625
Samuel Henry Howard	,,	2578	Bertie Fisher	,,	2626
Wilfred Gordon Chisnall	,,	2579	Arthur William Benjamin Heald	,,	2627
George Andrew Pelvin	,,	2580	John Joseph Lynskey	,,	2628
Stewart James Richmond	,,	2581	Hermann Ellmers Mehrtens	,,	2629
James Thomas Jones	,,	2582	Anthony Moran	,,	2630
Michael Joseph Young	,,	2583	Duncan Campbell Pethig	,,	2631
Ivon Raymond Creagh	,,	2584	John Tindle Smith	,,	2632
Wilson McKie	,,	2585	Barnabus Waugh Kenney	,,	2633
William Archibald Wilson	,,	2586	Richard Carruthers	,,	2634
Edward Donaldson	,,	2587	Edwin George Church	,,	2635
Alexander Gordon Leeden	,,	2588	Michael Duggan	,,	2636
James Milne, jun.	,,	2589	Nicholas Edward Fitzgerald	,,	2637
John McMillen	,,	2590	John Langdon	,,	2638
William Nicol	,,	2591	Patrick Quigley	,,	2639
Alban Joseph Rosenbaum	,,	2592	William Stewart Smith	,,	2640
John Scobie Ritchie	,,	2593	William Walter Timms	,,	2641
Thomas Jones	,,	2594	John Walker	,,	2642
Patrick Joseph Barry	,,	2595	Frederick William Pemberton	,,	2643
James Mason, jun.	,,	2596	William Mahoney	,,	2644
Sylvester John O'Sullivan	,,	2597	Sydney Robert White	,,	2645
Archibald McLennan Chisholm	,,	2598	James Clifford Crutch	,,	2646
James Meagher	,,	2599	William Dowie	,,	2647
Martin Bernet Svensen	,,	2600	Thomas Dunn	,,	2648
George West	,,	2601	Andrew Jacob Haub	,,	2649
Robert Harold Gurnell Harwood	,,	2602	Archibald Douglas McAllister	,,	2650
Samuel Fullerton	,,	2603	Murdock White McDonald	,,	2651
Dover Goddard Andrews	,,	2604	Job Stanley	,,	2652
Edwin Bray	,,	2605	Aaron Griffiths	,,	2653
Bennett White	,,	2606	James Miller	,,	2654
Ernest Arthur Russell Wilson	,,	2607	John Small	,,	2655
Herbert Charles Astley	,,	2608	Albert Stevens	,,	2656
John Peter Grace	,,	2609	John Constantine Thomson	,,	2657
Francis James Robertson	,,	2610	Percy Arthur Thomson	,,	2658

No. 11.—Return of Locomotive and Traction Engine Drivers, etc.—*continued.*

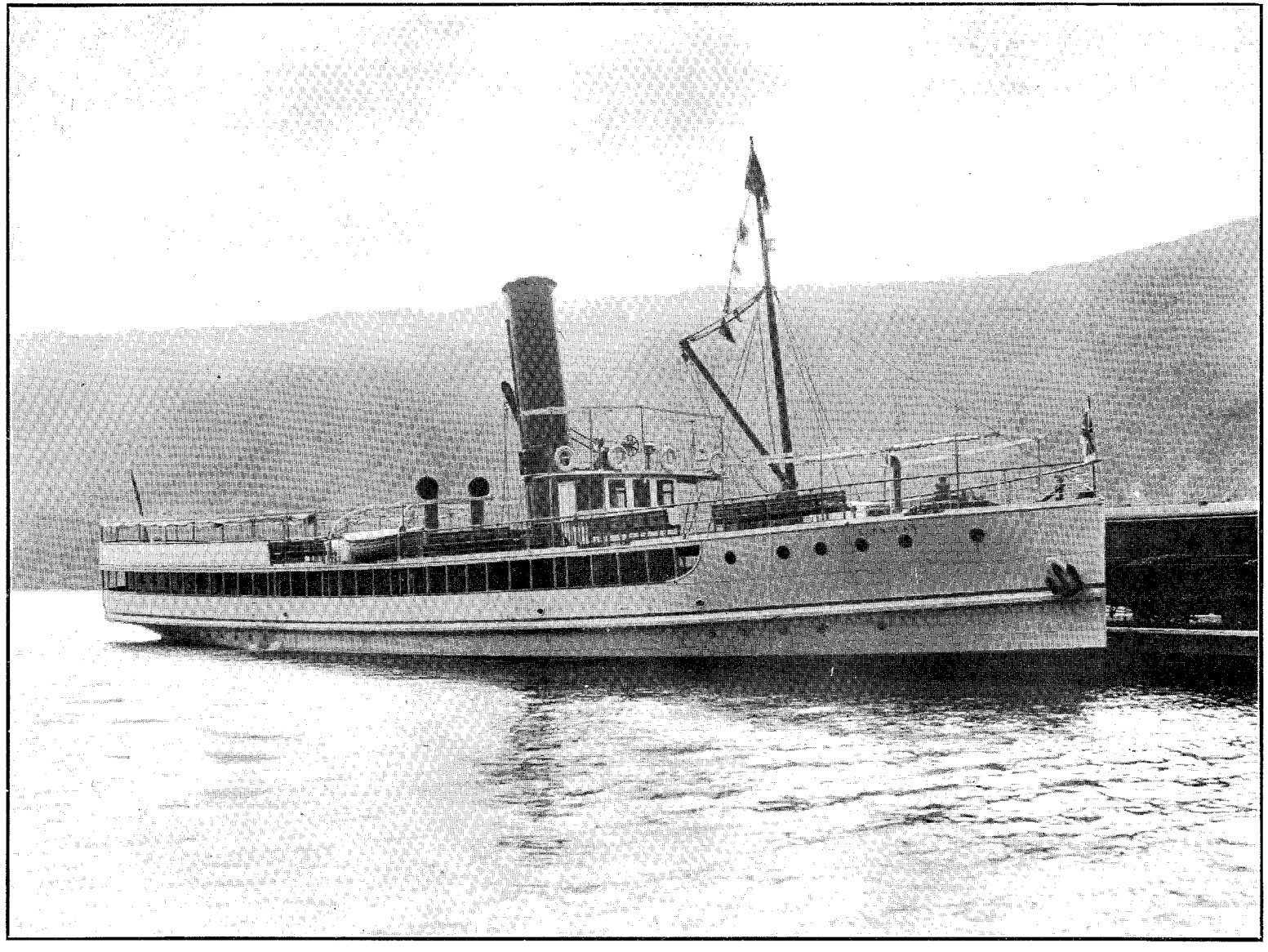
Class of Certificate: Locomotive and Traction, Competency—continued.

Name of Person.	Date of Issue.	No.
	1912.	
Charles Forrester Lewis	Aug. 15	2659
Sydney Gerald Stirling	,,	2660
John Phillip Andrew Artha	,,	2661
Arthur Sydney Hounsell	Nov. 22	2662
Vincent James Pfeifer	,,	2663
James Stephen Sanders	,,	2664
Allan William Stuart King	,,	2665
John Murray Eaglesome	,,	2666
Owen Charles Affleck	,,	2667
Walter Anderson Clifton	,,	2668
John Cowx	,,	2669
John Herbert Minton	,,	2670
Edward Louth Wakelin	,,	2671
Walter Hand Westbury	,,	2672
William John Maisey	,,	2673
Bertie Thomas Hockridge	,,	2674
John Robert Morgan	,,	2675
Harry James Page	,,	2676
John Patrick Martin Quinlan	,,	2677
James Ebenezer Thompson	,,	2678
Frederick William Zimmermann	,,	2679
Peter Craig	,,	2680
Richard Donaldson	,,	2681
Robert Walker	,,	2682
Charles Robinson	,,	2683
William Cook	,,	2684
Alexander Evans	,,	2685
Ernest John Myhill	,,	2686
Lennox McBeath	,,	2687
Angus McKay	,,	2688
John Scott	,,	2689
Martin Campbell	,,	2690
Charles Palmer Sleeman, jun.	,,	2691
John Smith	,,	2692
Martin Vaughan	,,	2693
Robert Hutton	,,	2694
George Birss	,,	2695
Fritjof Jalma Magnussen	,,	2696
Steadman Conway Chisnall	,,	2697
Alfred Deadmarsh	,,	2698
Patrick Hyland	,,	2699
James McCormick	,,	2700
John James Poulson	,,	2701
Alexander Swain	,,	2702
Robert Tacon, jun.	,,	2703
Leonard Arthur Walker	,,	2704
Robert Whyte	,,	2705
William McGee	,,	2706
John Solomon Taylor	Nov. 22	2707
John Darroch Bodle	,,	2708
Richard Brown	,,	2709
Adam Crabb	,,	2710
Joseph Ford	,,	2711
Charles Harris	,,	2712
William Wilson	,,	2713
Thomas Bellis	,,	2714
George Arthur Hahn	,,	2715
Robert John Stuart	,,	2716
John Bray	,,	2717
	1913.	
James Watkins	Feb. 13	2718
George Davidson	,,	2719
Thomas William Hope	,,	2720
Andrew Brand	,,	2721
George Smith	,,	2722
John William Deegan	,,	2723
George Tetley	,,	2724
William Copland	,,	2725
John Manning	,,	2726
Amos James Smith	,,	2727
John Shughrue	,,	2728
John Trotter Wilson	,,	2729
James Willacy, jun.	,,	2730
Henry Ernest Diffey	,,	2731
August Henry Wackrow	,,	2732
Charles Edward Clark	,,	2733
Samuel Ngaru Hodge	,,	2734
Herbert Cecil Baker	,,	2735
Albert Leo Casey	,,	2736
Richard Watson	,,	2737
Thomas Bolger	,,	2738
Alfred James Durant	,,	2739
Gavin John Sedgesmund Hogg	,,	2740
William Edward Lindsay	,,	2741
Peter Wadsworth	,,	2742
Richard Williams	,,	2743
Charles Joseph Ernest Beanlands	,,	2744
Thomas Kennedy	,,	2745
William Robert Ross	,,	2746
George Waite	,,	2747
William Brown Miller	,,	2748
James Macfie, jun.	,,	2749
Herbert Dawson	Mar. 19	2750
John Martin	,,	2751
Charles Edward Heasman	,,	2752
Robert Thomson	,,	2753

No. 12.—Return of Electric Winding-engine Drivers to whom Certificates of Service have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: Electric Winding, Service.

Name of Person.	Date of Issue.	No.
	1912.	
Michael Moye	Aug. 15	14



T.S.S. "Earnslaw."—Built and engined in Dunedin for Use by Railway Department on Lake Wakatipu.

No. 13.—Return of Steam-winding-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: Winding, Competency.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1912.			1912.	
Thomas McGill	June 6	473	Arthur Ernest Toyer	Nov. 22	487
Thomas McQuillan, jun.	,,	474	John Jones	,,	488
William McFarlane	,,	475	James Allan	,,	489
Mayo Carlton Clark	Aug. 15	476	Thomas Bertie Baty	,,	490
Richard Nelson Thackeray	,,	477		1913.	
Harry Williams	,,	478	Edward Allison	Feb. 13	491
Irwin Clearwater	,,	479	James Allison	,,	492
Richard Gwynne Trimble	Nov. 22	480	Robert Morrow	,,	493
Farquhar Stewart	,,	481	Daniel Tyson Satterthwaite	,,	494
Albert Edward Landorf	,,	482	Ernest Joseph Joyce	,,	495
Edward Blake	,,	483	Thomas Albert Lowe	,,	496
Ezra Broadbent	,,	484	William Kerr McLean	,,	497
Dudley Starr	,,	485	Samuel George Churchill	Mar. 19	498
Albert Thomas Couch Stevans	,,	486	John Foote	,,	499

No. 14.—Return of Electric-tram Drivers to whom Certificates of Service have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: Electric-tram, Service.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1912.			1912.	
William Dick	May 30	414	William John Steele	May 30	415

No. 15.—Return of Electric-tram Drivers to whom Certificates of Competency have been granted from the 1st April, 1912, to the 31st March, 1913.

Class of Certificate: Electric-tram, Competency.

Name of Person.	Date of Issue.	No.	Name of Person.	Date of Issue.	No.
	1912.			1912.	
John Washington Walker	May 30	139	James Henry Exton	May 30	158
Alfred Symons	,,	140	Harold Peile	,,	159
George Francis Owens	,,	141	Herbert Vivian Goodsir	,,	160
Frederick Augustus Peters	,,	142	Frank Jackson Yeoman	,,	161
John Ayres	,,	143	Robert Easley Hooker	,,	162
Victor Albert Hayden	,,	144	Alfred Marshment	,,	163
Albert Edward Betts	,,	145	Robert Crawford Reid	,,	164
John Elias Peach	,,	146	Frederick James McDougall	,,	165
Scott Symington	,,	147	Herbert Sidney Gibbons	,,	166
Ellice Guise Foster	,,	148	George Morris	,,	167
James Arthur Smith	,,	149	John Alfred Edward Page	,,	168
John Ernest Marshall	,,	150	Herbert Stanley Jones	,,	169
Alfred Donald Scott	,,	151	Reuben Bramwell Parker	,,	170
Paul Bishop Lemon	,,	152	John Henry Dinneen	,,	171
William Alfred Colmar	,,	153	Percival Gordon Tonks	,,	172
Robert Brownlie Johnstone	,,	154	Sidney Woodham	,,	173
George Frederick Walker	,,	155	Albert Murch	,,	174
Walter Edmund Wragge	,,	156	James Wilfred Muir	,,	175
James Dudley Baunton	,,	157	William Dent	,,	176

No. 15.—Return of Electric-tram Drivers, etc.—*continued.*

Class of Certificate: Electric-tram, Competency—continued.

Name of Person.	Date of Issue.	No.
	1912.	
William Kay	May 30	177
Austin Lakeland	,,	178
Vaughan Walker	,,	179
Alfred Wardell	,,	180
Sydney Ernest Holah	,,	181
Charles Willam Arthur Hutchison	,,	182
Duncan McEwen	Aug. 15	183
Hans Anderson	,,	184
Stanton Carew Cross	,,	185
George Inniss	,,	186
William Kempton	,,	187
Albert Knowsley	,,	188
Silas Leech	,,	189
Robert Frederick Mason	,,	190
Albert Newson	,,	191
Joseph Alexander Salvin	,,	192
John Thompson	,,	193
Bramwell Tonkin	,,	194
Thomas William Wells	,,	195
Francis Herman Bowkett	,,	196
William Adam Donaldson	,,	197
George Robert Grice	,,	198
Sydney Hunt	,,	199
Cyril Joseph James	,,	200
Harry Benjamin Knox	,,	201
Harry Archer Potvine	,,	202
Ralph Chapman	,,	203
Wallace Malcolm	Nov. 21	204
Harold Willam Moore	,,	205
John McGibbon	,,	206
Thomas Albert Williams	,,	207
Eugene Simon	1912. Nov. 21	208
Herbert Fletcher Tomlinson	,,	209
Arthur Hawkens	,,	210
William Alexander Pringle	,,	211
Edward Johnston	,,	212
Gilbert Sinclair	,,	213
James McKenzie Boyle	,,	214
Arthur Bowden	,,	215
Fred Davis	,,	216
George Charles Verran	,,	217
Alexander Johnston	,,	218
	1913.	
George Frederick Eeles	Feb. 21	219
James Vincent Booth	,,	220
Walter Frances Cribb	,,	221
Ernest Snow	,,	222
William Edward Colley	,,	223
George Alexander Evans	,,	224
Samuel Charles Mayall	,,	225
Simon Phillips	,,	226
Felix Barton Rowberry	,,	227
Thomas Turner	,,	228
George Henry Browning	,,	229
James Blair Campbell	,,	230
George William Connolly	,,	231
William Clarence Benham	,,	232
William Robertson Dever	,,	233
Arthur William Millard	,,	234
Francis Raper	,,	235
Frederick Harold Shepherd	,,	236

No. 16.—Return of Engineers who were examined and passed for Certificates of Competency during the year ended the 31st March, 1913.

Class for which examined: Foreign Trade.

Name of Person.	Rank.	Date of Examination.
		1912.
William Sidney Hall	First-class engineer	April 1, 2, 3.
Charles James McPherson	Ditto	,,
William George Thomson	,,	April 1, 2, 3, 4.
David William Bennie	,,	,,
Alexander Lang	,,	May 2, 3, 4.
Horace Alexander Bower	,,	June 4, 5, 6.
Lorne Murphy	,,	,,
Joseph Edmond Hamer	,,	June 24, 25, 26
Alexander Stuart Ewan	,,	June 26, 27, 28
Ernest Wilson Mackley	,,	June 26, 27, 28, 29.
Ivo Roydon Gilmour	,,	July 1, 2, 3.
Alexander Smith	,,	Aug. 5, 6, 7, 8.
James William Wheatley	,,	,,
George Luke	,,	Aug. 26, 27.
Cecil Nicholson Willis	,,	Aug. 30, 31; Sept. 2, 3.
Leslie Claude Davies	,,	Sept. 3, 4.
Harold Boyd	,,	Oct. 2, 3, 4.
Lionel Stanhope Dawson	,,	Oct. 7, 8, 9.
Charles Broadley	,,	Oct. 8, 9, 10.
Henry James Stratford Johnson	,,	Oct. 10, 11.
George Robert Falla	,,	Nov. 4, 5, 6.
William Peterson	,,	Dec. 3, 4, 5.
John McLeish Maxwell	,,	,,
Charles Thomas Stewart	,,	,,
Gerald Geoffrey Potts	,,	,,
Wathen Wallis Houghton	,,	Dec. 18, 19, 20. 1913.
Alexander Inglis Clark	,,	Jan. 6, 7, 8.
Arthur Ballington Daniel	,,	,,
Francis Percival Hewitt	,,	,,
John Athol Nicol	,,	Feb. 3, 4, 5.
James Stanley Miller	,,	Mar. 3, 4, 5.
Cecil Stuart Richardson	Second-class engineer	1912. May 2, 3.
Angus Macdonald	Ditto	,,
James Oswald Penman	,,	,,
Fritz Falavai Kronfeld	,,	June 4, 5.
Robert Graham	,,	,,
Reginald Aubrey Lewis	,,	,,
Gordon Everard Dickey	,,	June 4, 6.
Francis Onslow Morath	,,	Aug. 5, 6.
Bertram William Gandell	,,	,,
Walter Sommerville	,,	Sept. 3, 4.
James Arthur Robinson Scott	,,	Sept. 19, 20, 21
William Henry Young	,,	Oct. 7, 8.
Leigh Easton Baxter	,,	Nov. 1, 2.
Joseph Frank McPherson	,,	,,
George Frank Banfield	,,	Nov. 18, 19.
Charles Henry Harris	,,	Dec. 7.
Frank Bernard Williams	,,	Dec. 4, 5.
Horace Park Matheson	,,	,,
Benjamin Dennitts Smith	,,	Dec. 16, 17. 1913.
Edward Charles Roi Young	,,	Jan. 6, 7.
Arthur George Rogerson	,,	Jan. 27, 28.
Frank Mowatt	,,	Feb. 3, 4.
Ralph Beaufoy	,,	,,
William Thomas	,,	,,
John Alexander Urquhart	,,	,,
William Byers Stanley Sealy	,,	Feb. 10, 11. 1912.
Albert Rutherford Douglas	Third-class engineer	April 1.
James Alexander Thomson	Ditto	,,
Gordon George Lunn	,,	,,
Alfred Duncan Shearer	,,	,,
Arthur Wilkinson Bagley	,,	,,
Lewis Vincent Gully	,,	April 29.

No. 16.—Return of Engineers who were examined and passed for Certificates of Competency, etc.—*continued.*

Class for which examined: Foreign Trade—continued.

Name of Person.	Rank.	Date of Examination.
		1912.
Thomas Ralph Noble ..	Third-class engineer	May 1.
James Alexander Carnahan ..	Ditto. ..	May 2.
Edward Ross	,, ..	,,
Benjamin Percy Dawson ..	,, ..	,,
William Arthur Martin ..	,, ..	,,
Philip Stanley Ring Horne ..	,, ..	,,
Kevin Bartholomew Garvey	,, ..	June 4.
Douglas Gordon Jack ..	,, ..	,,
Louis Foster McDonald ..	,, ..	,,
James Power	,, ..	,,
Leslie Victor Smith ..	,, ..	,,
Hursey John Turner ..	,, ..	,,
Cromwell Spencer Tewsley ..	,, ..	,,
William Henry Coates ..	,, ..	June 5.
William Albert John Marris..	,, ..	June 6.
Orlando Lovel Nahr ..	,, ..	,,
Morris de Camp Ranson ..	,, ..	June 14.
Walter Geoffrey Thomas ..	,, ..	July 1.
Eric Aubrey Mosley ..	,, ..	,,
William Wallace Macgregor	,, ..	,,
Hugh Lewis	,, ..	July 3.
Elliott Fleming	,, ..	July 13.
Clement Cauty Richardson ..	,, ..	July 16.
Griffith Fitz Howell Jones ..	,, ..	Aug. 1.
William Henry Claude Monaghan	,, ..	,,
Edward William Scott ..	,, ..	,,
Cecil Thomas Berwick Le Grys	,, ..	,,
Donald David Matheson ..	,, ..	Aug. 2.
Wilson Campbell	,, ..	,,
William Frederick Herbert Lamborn	,, ..	Aug. 5.
Richard Stanley Maunder ..	,, ..	Aug. 6.
James Charles Gray ..	,, ..	Aug. 10.
Alexander Cable	,, ..	Aug. 30.
Duncan William Palmer ..	,, ..	Sept. 2.
William Gibson Stevenson ..	,, ..	,,
George Watson Fraser ..	,, ..	,,
William Frank Pegler ..	,, ..	,,
Edwin Robertson Gibbons ..	,, ..	,,
David William Vaughan ..	,, ..	,,
Arthur Edward Victor Evans	,, ..	,,
Oscar Hugh Wright ..	,, ..	,,
Leonard Edgar Gillett ..	,, ..	,,
Vincent Maplesden ..	,, ..	Sept. 4.
Malcolm Campbell ..	,, ..	Sept. 5.
John Egerton Langdon ..	,, ..	Oct. 7.
Bernard James Rasmussen ..	Third-class engineer	Oct. 7, 1912.
Hubert Loveland Munson ..	Ditto. ..	,,
Alexander Hugh Ross ..	,, ..	,,
Archibald Walker, jun. ..	,, ..	,,
Albert Edward William Scully	,, ..	Oct. 16.
John Le Cren Morgan ..	,, ..	Nov. 1.
Leopold Herbert Claude Paterson	,, ..	,,
Arthur Brown	,, ..	Nov. 1, 2.
Oscar Christian David Lundius	,, ..	Nov. 2.
William Vallance Rowan ..	,, ..	Nov. 4.
Gordon Morgan	,, ..	,,
Frank McCalman	,, ..	,,
David Finlayson MacDonald	,, ..	Nov. 9.
Frank Harold James ..	,, ..	Nov. 29.
James Wallace Clark ..	,, ..	Dec. 3.
William Gillies	,, ..	,,
Reginald Victor Hurley ..	,, ..	,,
Ernest McCallum	,, ..	,,
George Henry Sharp ..	,, ..	Dec. 9.
Norman Rivers Kitching ..	,, ..	Dec. 16.
William Perry Okey ..	,, ..	Dec. 18.
Gordon Louis Ansenne ..	,, ..	1913. Jan. 3.
Charles Field Goldsbro' ..	,, ..	,,
Allan Ramsay Wilson ..	,, ..	,,
Frederick Charles McLeod ..	,, ..	,,
Roy Ernest Fordham ..	,, ..	,,
Percy William Rickards ..	,, ..	,,
Ernest Edward Jones ..	,, ..	,,
John Oliver Cooker ..	,, ..	Jan. 16.
Michael O'Sullivan ..	,, ..	Feb. 1.
John Joseph Flaherty ..	,, ..	Feb. 1, 3.
James John Minehan ..	,, ..	,,
Ernest Carlton Hall ..	,, ..	,,
Randall Robert Parker ..	,, ..	Feb. 3.
William Francis Aonui Dennan	,, ..	,,
Thomas Robin Morgan ..	,, ..	,,
William Alfred Henry Scott ..	,, ..	,,
Robert Henry Gerrie ..	,, ..	,,
Frederick John Dobson ..	,, ..	,,
Sydney Herbert Wynne ..	,, ..	Feb. 24.
Leslie George Wilkinson ..	,, ..	Feb. 27.
Frederick Hadlow Barton ..	,, ..	Mar. 3, 4.
Arnold Joseph Brooke ..	,, ..	,,
Hector Norman Ripley ..	,, ..	Mar. 14.

Class for which examined: River Trade.

Name of Person.	Rank.	Date of Examination.
		1912.
Frederick Burnell	River engineer	May 2.
Charles Albert Cook ..	,,	,,
Andrew Munro	,,	,,
Alfred Clark	,,	,,
John James	,,	,,
John Penman Newby ..	,,	May 3.
Robert O'Neil	,,	,,
Hubert John Jensen ..	,,	June 4.
John McDonald	,,	June 24.
Kenneth Kennedy ..	,,	Oct. 2.
Alister Harry Robert Hunt ..	,,	Oct. 7.
James Edward Brown ..	,,	,,
Frank Harris	,,	Oct. 7 and 8.
Arthur Forbes Murray ..	,,	Oct. 12. 1913.
Cyril Probyn Berridge ..	,,	Jan. 3.
Arthur Drummond ..	,,	,,
John Dyer	,,	Feb. 3.
Stephen Lawrence Wilson ..	,,	Mar. 19. 1912.
Robert Gibb	Marine - engine driver	May 1.
Arthur Edward Lockwood ..	Ditto. ..	Sept. 18. 1913.
Arthur Burrows	,, ..	Jan. 3.

No. 16.—Return of Engineers who were examined and passed for Certificates of Competency, etc.—*continued.*

Class for which examined: Sea-going.

Name of Person.	Rank.	Date of Examination.
		1912.
Charles Edwin Nicholson ..	First-class engineer (powered vessels other than steam)	May 1, 4.
Edwin Stanford Hibbard ..	Ditto ..	Sept. 20.
Robert George Huggins ..	,, ..	Oct. 7.
Herbert Garnet Luke ..	,, ..	,,
William Roxburgh Eadie ..	,, ..	Dec. 2.
		1913.
Gerard Edwin Sampson ..	,, ..	Jan. 6, 7.
Alexander Kennedy ..	,, ..	Feb. 3, 4.

Name of Person.	Rank.	Date of Examination.
		1912.
Frederick Burnell	Second-class engineer (power-vessels other than steam)	May 1.
Michael Tants	Ditto ..	May 1, 4.
Robert John Murray ..	,, ..	Aug. 1.
Charles James Roberts ..	,, ..	Oct. 1.
William Little	,, ..	Dec. 3.
		1913.
John Thomas Clark ..	,, ..	Jan. 7.
James Osborne Lawler ..	,, ..	,,

Class for which examined: River Trade.

Name of Person.	Rank.	Date of Examination.
		1912.
Charles Henry Bowman ..	Restricted-limits engineer (powered vessels other than steam)	April 26.
Leonard George Walker ..	Ditto ..	May 1.
Frank Batterbury Britton ..	,, ..	May 2.
John Christian Berg ..	,, ..	,,
George Walter Swan ..	,, ..	May 3.
John Melville	,, ..	,,
Thomas Henry Flavell ..	,, ..	,,
Trevor McLeod	,, ..	,,
Daniel McCurdy	,, ..	May 4.
Edgar Hastings Cambridge ..	,, ..	,,
Louis Lovell Blanche ..	,, ..	May 6.
Cecil Eliel Carlson ..	,, ..	June 5.
Edward Withers	,, ..	June 8.
Frederick Samuel William Wyatt	,, ..	June 19.
John Thomas Pegley ..	,, ..	July 1.
Leonard Charles McAllister ..	,, ..	,,
Henry James Sharland ..	,, ..	July 12.
Thomas Norman Brocas ..	,, ..	,,
Harold Norman Brocas ..	,, ..	,,
Thomas William Baker ..	,, ..	,,
William Henry Edgell ..	,, ..	,,
John Jackson Ogle ..	,, ..	July 15.
Charles Northwood ..	,, ..	,,
Henry William Coxhead Sharland	,, ..	,,
Arthur Ellesmere Grover ..	,, ..	,,
Charles Herbert Eyes ..	,, ..	,,
Gerald John Lane ..	,, ..	,,
Richard Howard	,, ..	,,
Sydney John Cooper ..	,, ..	,,
Richard Alfred Northwood ..	,, ..	,,
Frederick Andrews Lees ..	,, ..	July 19.
Leonard Morton Hartley Cheriton	,, ..	,,
Reginald Hawkins ..	,, ..	,,
John James Beazley ..	,, ..	,,
Herbert Charles Harris ..	,, ..	,,
Robert Hugh Harris ..	,, ..	,,
Joseph Fell	,, ..	,,
Harry Blundell	,, ..	,,
James Munro	,, ..	,,
Charles Eyes, sen.	,, ..	,,
Carl Schrader	,, ..	,,
William Henry Cawne Warren	,, ..	,,
Albert Josephus Craig ..	,, ..	,,
Dawson Grover	,, ..	,,
John Bernard Andrewes ..	,, ..	July 22.
Richard Betridge	,, ..	,,
James William Silcock ..	,, ..	July 23.
William Harawira Armstrong	,, ..	Aug. 2.
Henry William Walker ..	,, ..	Aug. 4.
Thomas Henry Walker ..	,, ..	,,
Arthur Edward Forbes ..	,, ..	Aug. 5.
John Devoy Ballantyne ..	,, ..	Aug. 7.

Name of Person.	Rank.	Date of Examination.
		1912.
John Leslie Crane ..	Restricted-limits engineer (powered vessels other than steam)	Aug. 21.
John Fitzgerald	Ditto ..	Aug. 24.
Allan Glass	,, ..	Sept. 2.
Harold Abel Partridge ..	,, ..	,,
William Browne Glover ..	,, ..	,,
Herbert Pasquate Clarke ..	,, ..	,,
Herbert Hannam	,, ..	,,
John Thomas Wade ..	,, ..	,,
Charles Samuel Marks ..	,, ..	,,
Harry Marsh	,, ..	,,
William John Stewart ..	,, ..	,,
Edward Thomas Lamb ..	,, ..	,,
David Moran	,, ..	Sept 4.
Murdo Stewart	,, ..	Sept. 27.
Henry Angus Nicholson ..	,, ..	Oct. 3
Albert John Craig ..	,, ..	Oct. 23.
Edward Thomas Stone ..	,, ..	,,
Frederick Kukutai ..	,, ..	Nov. 1.
Heywood Armstrong ..	,, ..	,,
Samuel Ure	,, ..	Nov. 2 and 4.
Herbert Halliwell	,, ..	Nov. 7.
Henry Archibald Williams ..	,, ..	,,
Hedley James Hirst ..	,, ..	,,
Frederick Solloway Lane ..	,, ..	,,
James Stuart Hallahan ..	,, ..	,,
William Knarston ..	,, ..	Nov. 15.
Alfred Elliott Knarston ..	,, ..	,,
Ernest Walker Baker ..	,, ..	Nov. 20.
Alfred Thorne Banks ..	,, ..	Nov. 25.
Charles William Sundstrum ..	,, ..	Dec. 3.
Augustus Herbert Tonkinson	,, ..	,,
Frederick Allan Parry ..	,, ..	Dec. 4.
Frederick Harold Denham ..	,, ..	Dec. 5.
John Alfred Hansen ..	,, ..	Dec. 24.
		1913.
George Ogle, jun.	,, ..	Jan. 3.
Arthur Miles Herriott ..	,, ..	,,
Leonard Arbour Brown ..	,, ..	,,
George Tinsley Thompson ..	,, ..	,,
Joseph Brooks	,, ..	,,
Edgar John Waite ..	,, ..	,,
Norman Richard Harris ..	,, ..	,,
William Ernest John Harvey	,, ..	,,
Frank Lockwood Clayton ..	,, ..	,,
Arthur Percy Haslam ..	,, ..	Jan. 6.
Walter Dyer	,, ..	,,
William James Irwin ..	,, ..	Jan. 7.
William Daniels	,, ..	Jan. 27.
Williams Langdon	,, ..	,,
Wilmot Armstrong ..	,, ..	Feb. 3.
Theodore Montague Bregmen	,, ..	,,
Richard Woodgate Fuggle ..	,, ..	,,
Albert William Redmond Beecroft	,, ..	Feb. 4.
Stanley David Stewart ..	,, ..	Mar. 3.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed during the Financial Year ended the 31st March, 1913, with Particulars of Tonnage, etc.

Name of Vessel.	Tons Measurement. Gross.	Tons Measurement. Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle.
Admiral	121	82	50	..	Compound S. condensing	Single	
Advance	18	12	8	..	High pressure	"	
Advance II	5	3·79	8 B.H.P.	..	Oil-engines	"	
A.H.B.	10·54	5·45	15 B.H.P.	..	"	"	
Ahuriri	85	31	17	..	Compound S. condensing	"	
Aio (2)	6	4·5	20 B.H.P.	..	Oil-engines	"	
karoa	76	29	28	102	Compound S. condensing	"	
Albatross	217·88	111·11	37	..	"	"	
Alert	6·89	5·17	15 B.H.P.	..	Oil-engines	"	
Alexander	377	184	72	339	Compound S. condensing	Twin	
Alexandra	6·6	5	15 B.H.P.	..	Oil-engines	Single	
Alice	6	4·5	12 B.H.P.	..	"	"	..
All Black (2)	5·18	3·89	17 B.H.P.	..	"	"	..
All Black No. 1	6·6	5	18 B.H.P.	..	"	"	..
All Black No. 2	4·9	3·7	12 B.H.P.	..	"	"	..
Alma	6·43	4·83	10 B.H.P.	..	"	"	..
Alva	5·8	4·3	10 B.H.P.	..	"	"	..
Amy (2)	2·73	2·05	5 B.H.P.	..	"	"	..
Anna	28	19·4	10 B.H.P.	..	"	"	..
Aorere	76·5	49	16	63	Compound S. condensing	"	..
Apanui	243	134	27·5	208	Triple-ex. S. condensing	"	..
Aparima	5,703	3,683	284	2,547	"	Twin	..
Arahura	1,596	771·2	145	1,726	"	"	..
Arapawa	291·2	128·3	47	242	"	Single	..
Arawa(Port Underwood)	7·02	5·27	10 B.H.P.	..	Oil-engines	"	..
Arawa (Rotorua)	2·45	1·84	5 B.H.P.	..	"	"	..
Aroha	4·76	3·57	8 B.H.P.	..	"	"	..
Arrino	3·17	2·38	5 B.H.P.	..	"	"	..
Atarau	3·2	2·4	8 B.H.P.	..	"	"	..
Atlas	3·1	2·3	10 B.H.P.	..	"	"	..
Atua	2·73	2·05	5 B.H.P.	..	"	"	..
Aupouri	463	220	55	402	Triple-ex. S. condensing	Twin	..
Aurere	4·2	3·15	6 B.H.P.	..	Oil-engine	Single	..
Awahou	407	151·4	74	297·6	Compound S. condensing	Twin	..
Awaroa	344	210	62	477·7	Triple-ex. S. condensing	Single	..
Awarua	2·48	1·86	4½ B.H.P.	..	Oil-engine	"	..
Baden Powell	174·2	72	30	210	Compound S. condensing	"	..
Baroona	136	78·7	24	..	"	"	..
Beldame	..	4	20 B.H.P.	..	Oil-engines	"	..
Bell Bird (2)	88·18	52	14	..	Triple-ex. S. condensing	"	..
Belle	6·26	4·7	10 B.H.P.	..	Oil-engine	"	..
Benares	3·18	2·38	4 B.H.P.	..	"	"	..
Betsy Beard	20·83	9·75	40 B.H.P.	..	"	"	..
Betty	3	2·35	16 B.H.P.	..	"	"	..
Blenheim	151	85	50	227	Compound S. condensing	"	..
Bletsoe	2·12	1·59	5 B.H.P.	..	Oil-engines	"	..
Breeze	552·5	286·1	84	454	Triple-ex. S. condensing	"	..
Breta Tui	60	35·8	40 B.H.P.	..	Oil-engines	"	..
Britannia (Auckland)	196·5	108·4	40	..	High pressure	..	Paddle.
Britannia (Invercargill)	23·4	9·57	2½ B.H.P.	..	Oil-engines	Single	..
Brooklyn	3·28	2·46	8 B.H.P.	..	"	"	..
Campbell	7·61	5·71	20 B.H.P.	..	"	Twin	..
Canopus	1,337	834	250	1,138	Triple-ex. S. condensing	"	..
Canterbury (Lyttelton)	..	..	24	..	High pressure	"	..
Canterbury (Dredge) (2)	1,112·8	521·4	120	..	Compound S. condensing	"	..
Centaur	7·9	6	32 B.H.P.	..	Oil-engines	"	..
Chelmsford	122	79	25	79	Compound S. condensing	Single	..
Clansman	634	379	99	566	"	"	..
Claymore	257·9	119	54	366	Triple-ex. S. condensing	"	..
Clematis	4·48	3·36	12 B.H.P.	..	Oil-engines	"	..
Clutha	172·5	95·5	24	..	Compound S. condensing	..	Stern wheel.
Clyde	130	..	40	..	"	..	"
Cobar	158·8	57·8	40	..	"	Single	..
Comet (Auckland)	10·69	8	6 B.H.P.	..	Oil-engines	"	..
Comet (Stewart Island)	7·94	5·96	5 B.H.P.	..	"	"	..
Condor	272	187	24	..	Compound S. condensing	Single at each end	..
Conella	1·2	0·92	3½ B.H.P.	..	Oil-engines	Single	..
Coo-ee	3·78	2·88	8 B.H.P.	..	"	"	..
Corinna	1,271	812·3	141	1,045	Compound S. condensing	"	..
Coromandel	99	67	25	..	"	"	..
Countess (Hokitika)	3·43	2·5	6 B.H.P.	..	Oil-engines	"	..
Countess (Napier)	141	56·5	28	178	Compound S. condensing	"	..
Cygnet (Lyttelton)	124	66	43	182	"	"	..
Cygnet (Te Kopuru)	4·04	3·03	8 B.H.P.	..	Oil-engines	"	..
Daphne	192	99·9	55	245	Compound S. condensing	"	..
Dauntless	4·5	3·42	16 B.H.P.	..	Oil-engines	"	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle.
Dawn	18·9	14	16 B.H.P.	..	Oil-engines	Single	..
Defender (Sydney)	185·2	109·3	36	116	Compound S. condensing	"	..
Defender (Thames)	4·8	3·6	18 B.H.P.	..	Oil-engines	"	..
Defiance (2)	7·11	5·34	15 B.H.P.	..	"	"	..
Despatch	35	24	20	..	Compound S. condensing	"	..
Doak	4	3	8 B.H.P.	..	Oil-engines	"	..
Dolphin	..	5·5	15 B.H.P.	..	"	"	..
Doris (Napier)	4·72	3·54	20 B.H.P.	..	"	"	..
Doris (Picton)	2·31	1·73	4 B.H.P.	..	"	"	..
Dorrigo	302·4	195·4	39·5	..	Compound S. condensing	"	..
Dot	1	0·8	5 B.H.P.	..	Oil-engines	"	..
Doto	28·5	19·4	16	..	Compound S. condensing	"	..
Dove (Pelorus Sound)	2·34	1·75	4 B.H.P.	..	Oil-engines	"	..
Dove (Picton)	2·74	2	4 B.H.P.	..	"	"	..
Dreadnought (Invercargill)	34·6	25·95	12 B.H.P.	..	"	..	Stern wheel.
Dreadnought (Westport)	5·4	4	5 B.H.P.	..	"	Single	..
Dredge No. 121	657	394	100	..	Compound S. condensing	Twin	..
Dredge No. 222	906·6	501·7	140	833	"	"	..
Dredge No. 350	941	488	117	590·5	Triple-ex. S. condensing	"	..
Dredge No. 404	479	211	78	415·5	Compound S. condensing	"	..
Duchess (Hokitika)	1·2	0·9	1½ B.H.P.	..	Oil-engines	Single	..
Duchess (Wellington)	308	95	81	..	Triple-ex. S. condensing	"	..
Eagle	219	138	70	..	Compound S. condensing	..	Paddle.
Echo	125	98	60 B.H.P.	..	Oil-engines	Twin	..
Eclipse (Picton)	2·65	1·98	8 B.H.P.	..	"	Single	..
Eclipse (Te Kopuru)	2·9	2·1	8 B.H.P.	..	"	"	..
Eileen Ward	1023·2	472	123·6	..	Triple-ex. S. condensing	Twin	..
Eleanora	2·87	2·15	8 B.H.P.	..	Oil-engines	Single	..
Elsie (Auckland)	27	20·5	30 B.H.P.	..	"	Twin	..
Elsie (Auckland)	5	3·9	15 B.H.P.	..	"	Single	..
Elsie (Nelson)	3·48	2·61	5 B.H.P.	..	"	"	..
Elsie (Picton)	42·48	22·17	11	..	Compound S. condensing	"	..
Elsie Evans	7·8	5·8	20 B.H.P.	..	Oil-engines	"	..
Elswick	5·34	4	12 B.H.P.	..	"	"	..
Emerald	5	3·75	10 B.H.P.	..	"	"	..
Express	7·6	5·7	18 B.H.P.	..	"	"	..
Endeavour	75·9	54·46	30 B.H.P.	..	"	"	..
Energy	63·73	16	16	..	Compound S. condensing	"	..
Erlin (2)	5·47	4·11	4	..	"	"	..
Erskine (2)	126	98	35	..	"	"	..
Eureka (2)	3·3	2·42	8 B.H.P.	..	Oil-engines	"	..
Eva	17	4·74	20 B.H.P.	..	"	"	..
Evelme	..	..	8	..	High pressure	"	..
Excelsior (Auckland)	6·5	4·9	6½	..	"	"	..
Excelsior (Auckland)	48·76	29·24	24 B.H.P.	..	Oil-engines	Twin	..
Express	53	36	25	97	Compound S. condensing	Single	..
Fairburn (2)	94·72	59·81	60 B.H.P.	..	Oil-engines	"	..
Fairy	44·74	32·48	10¾	..	Compound S. condensing	"	..
Fanny	90	55	30	147	"	"	..
Farina (2)	7	5·25	16 B.H.P.	..	Oil-engines	"	..
Ferro	13·9	10·4	20 B.H.P.	..	"	"	..
Ferry	2·7	2	4 B.H.P.	..	"	"	..
Firefloat	..	..	13·5 B.H.P.	..	High pressure	"	..
Flora	1,273	838·4	180	1,167	Compound S. condensing	"	..
Flossie	2·59	1·95	4½ B.H.P.	..	Oil-engines	"	..
Foam	2·5	1·9	5 B.H.P.	..	"	"	..
Freetrader	132	94	50	..	High pressure	..	Stern wheel.
Gael	95	55	20	93	Compound S. condensing	Single	..
Gannet	15	10	12	..	"	"	..
Geisha	5·3	4	12 B.H.P.	..	Oil-engines	"	..
Gem	4·1	3	6 B.H.P.	..	"	"	..
Gladsome	5·15	2·91	5 B.H.P.	..	"	"	..
Glenelg	288·3	155·6	75	255	Compound S. condensing	"	..
Glenlee	7	5·26	10 B.H.P.	..	Oil-engines	"	..
Gosford	89	23	30	..	Compound S. condensing	"	..
Green Duck	2·96	2·22	4 B.H.P.	..	Oil-engines	"	..
Greyhound	107	83	60 B.H.P.	..	"	"	..
Hananui II	127	44·3	58	259	Triple-ex. S. condensing	"	..
Hapai	867·2	363·5	154·8	..	"	Twin	..
Harriet	4·5	3·38	8 B.H.P.	..	Oil-engines	Single	..
Hauiti	147·5	82·45	32	239	Compound S. condensing	"	..
Haupiri	715	452	88	463	"	"	..
Hauroto	1,988	1,276	253	1,302	"	"	..
Hawera	174	91·8	31	193	"	"	..
Heathcote (2)	167	94	35	..	"	"	..
Heather (Nelson)	8	6	17 B.H.P.	..	Oil-engines	"	..
Heather (Nelson)	5·3	4	8 B.H.P.	..	"	"	..
Himitangi (2)	323	149	45	255	Triple-ex. S. condensing	"	..
Hina	55·7	39	20	76	Compound S. condensing	"	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle.
Hinemoa	5·8	4·38	10 B.H.P.	..	Oil-engines	Single	..
Hinewai (2)	6·45	4·84	16 B.H.P.	..	"	"	..
Hipi	37·5	12·5	11	..	Triple-ex. S. condensing	Twin	..
Hirere	48	18	16	..	Compound S. condensing	Single	..
Hobsonville	32·5	22·8	15 B.H.P.	..	Oil-engines	"	..
Holmdale	266	197	27	119	Compound S. condensing	"	..
Houto	141·5	77·5	45 B.H.P.	..	Oil-engine	"	..
Huanui	139	59	45 B.H.P.	..	"	"	..
Huia (Hamilton)	1·9	1·4	4 B.H.P.	..	"	"	..
Huia (Helensville)	3·5	2·63	5 B.H.P.	..	"	"	..
Huia (Wellington)	..	..	2	..	High pressure	"	..
Huia (Wellington)	127	69	25	121	Compound S. condensing	"	..
Huia (Wilson's Bay)	1·67	1·26	4½ B.H.P.	..	Oil-engine	"	..
Ida	1·86	1·4	2 B.H.P.	..	"	"	..
Invercargill	223	123	41	233	Compound S. condensing	"	..
Ira	5·78	4·34	6 B.H.P.	..	Oil-engines	"	..
Irene	4·3	3·2	8 B.H.P.	..	"	"	..
Iris (Mercury Bay)	3·54	2·66	6 B.H.P.	..	"	"	..
Iris (Thames)	4	3	12 B.H.P.	..	"	"	..
Iris (Waikato)	3·5	2·6	5 B.H.P.	..	"	"	..
Isa (Picton)	3·74	2·81	5 B.H.P.	..	"	"	..
Isa (Whangarei)	5	3·9	7½ B.H.P.	..	"	"	..
Isabel (Stewart Island)	6·1	4·58	5 B.H.P.	..	"	"	..
Isabel (Te Kopuru)	2·46	1·8	8 B.H.P.	..	"	"	..
Isabella de Fraine	110·27	75·6	60 B.H.P.	..	"	Twin	..
Ivy	11·4	8·5	18 B.H.P.	..	"	Single	..
Ivy Leaf	2·61	1·96	6 B.H.P.	..	"	"	..
Jane	27	20·3	20 B.H.P.	..	"	"	..
J.D.O.	129	88	28	..	Compound S. condensing	"	..
Jersey Lily	4·9	3·7	12 B.H.P.	..	Oil-engines	"	..
John	342	111	40	195	Compound S. condensing	"	..
John Anderson	52	36	20	..	"	"	..
John Kennedy	5·3	4	12 B.H.P.	..	Oil-engine	"	..
Kaeo	184	146·3	60 B.H.P.	..	"	Twin	..
Kahu (Auckland) (2)	54·6	24·93	40 B.H.P.	..	"	Single	..
Kahu (Napier)	181·9	99	40	227	Compound S. condensing	"	..
Kaiaia	44·9	24·3	24 B.H.P.	..	Oil-engines	Twin	..
Kaiapoi	2,003	1,246	201	1,031	Triple-ex. S. condensing	Single	..
Kaipara (2)	..	..	5·8	..	Compound S. condensing	"	..
Kaipatiki	53	19·8	9·5	..	Triple-ex. S. condensing	"	..
Kairaki (Kaiapoi)	4·88	3·66	5 B.H.P.	..	Oil-engines	"	..
Kairaki (Lyttelton)	462·4	181·7	91·6	526	Triple-ex. S. condensing	Twin	..
Kaitangata	1,981	1,218	200	1,234	"	Single	..
Kaitoa	303·6	117·6	65	267	Compound S. condensing	Twin	..
Kaituna (Auckland) (2)	8	6	10 B.H.P.	..	Oil-engines	Single	..
Kaituna (Dunedin)	1,976	1,246	200	1,008	Triple-ex. S. condensing	"	..
Kamona	1,425	903	117	748	"	"	..
Kanieri (Auckland)	202	115	20	143	Compound S. condensing	"	..
Kanieri (Lake Kanieri)	2·7	2	3½ B.H.P.	..	Oil-engines	"	..
Kapiti	242	113	35	203	Compound S. condensing	"	..
Kapui	59·18	28·81	30	..	"	"	..
Kapuni	188·4	96·5	30	190	"	"	..
Karaka	42·65	10·31	21·7	..	Triple-ex. S. condensing	"	..
Karamu	934	452·4	102	645	"	"	..
Karewa	5·3	4	1½ B.H.P.	..	Oil-engines	"	..
Karori (2)	1,862·6	1,194·3	147	924	Triple-ex. S. condensing	"	..
Karoro	76	51	17	..	Compound S. condensing	"	..
Kate (Batley)	7·22	5·42	14 B.H.P.	..	Oil-engines	"	..
Kate (Foxton)	..	..	5	..	High pressure	"	..
Katoa	2,483·8	1,381·6	335	1,599	Triple-ex. S. condensing	"	..
Kauri	2,833	1,830	304	1,226	"	"	..
Kawa	4·23	3·18	5 B.H.P.	..	Oil-engine	"	..
Kawau (Auckland)	47	37	14	..	Compound S. condensing	"	..
Kawau (Auckland) (2)	99	52·7	20	82	"	"	..
Kelvin	3·11	2·34	7 B.H.P.	..	Oil-engines	"	..
Kennedy	226	131	38	131	Compound S. condensing	Twin	..
Kereru	1·95	1·47	5 B.H.P.	..	Oil-engine	Single	..
Kestrel	245·6	159·2	43	..	Compound S. condensing	Single at each end	..
Kia Ora	2	1·5	4 B.H.P.	..	Oil-engines	Single	..
Kina	12	5·46	10 B.H.P.	..	"	"	..
Kini	1,122	702	130	661·7	Triple-ex. S. condensing	"	..
Kinohaku	7·6	5·7	8 B.H.P.	..	Oil-engine	"	..
Kiripaka	132·7	74·5	20	89·7	Compound S. condensing	"	..
Kiritona	136·4	75·2	150 B.H.P.	..	Oil-engines	Twin	..
Kittawa	1,246	707	120	735	Triple-ex. S. condensing	Single	..
Kiwi (Preservation Inlet)	1·59	1·2	2 B.H.P.	..	Oil-engine	"	..
Kiwi (Te Kopuru) (2)	..	..	3	..	High pressure	"	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Tons Measurement. Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle
Koi	136	53·7	32	..	Compound S. condensing	Twin	..
Kokere	4·15	3·12	10 B.H.P.	..	Oil-engines	Single	..
Kokiri	5·2	3·9	8 B.H.P.	..	"	"	..
Komata	1,993	1,194	260	1,230	Triple-ex. S. condensing	"	..
Koonya	1,090	662	115	715	"	"	..
Kopu	..	18	13	..	High pressure	..	Paddle.
Koputai	153	5	120	448	Compound S. condensing	Single	..
Korari	4·83	3·63	8 B.H.P.	..	Oil-engines	"	..
Koroi	..	..	9·2	..	Triple-ex. S. condensing	"	..
Koromiko	2,479	1,541	313	1,519	"	"	..
Kotare	141	79	20	152	"	"	..
Kotere	6·4	4·8	6 B.H.P.	..	Oil-engines	"	..
Kotiti	61·3	42	14	67	Compound S. condensing	"	..
Koutu	2·89	2·17	5 B.H.P.	..	Oil-engines	"	..
Koutunui	170·8	98·3	26	149	Compound S. condensing	Twin	..
Kowhai	791·7	403·7	128	597	Triple-ex. S. condensing	Single	..
Kumi	13·25	5·44	28 B.H.P.	..	Oil-engines	"	..
Kura	21·2	15·9	35 B.H.P.	..	"	"	..
Kurow	2,580	1,564	333	1,629	Triple-ex. S. condensing	"	..
Kyra	2·63	1·97	7 B.H.P.	..	Oil-engines	"	..
Lady Moire	2·86	2·15	5 B.H.P.	..	"	"	..
La Mascotte (Picton)	4·72	3·54	10 B.H.P.	..	"	"	..
La Mascotte (Rotorua)	1·19	0·9	4 B.H.P.	..	"	"	..
Larola (Picton)	4·72	3·54	10 B.H.P.	..	"	"	..
Larola (Wanganui)	4·13	3·13	10 B.H.P.	..	"	"	..
Lena	15·16	11·51	8 B.H.P.	..	"	"	..
Lillian	5·6	4·2	10 B.H.P.	..	"	"	..
Lily	1·86	1·26	10 B.H.P.	..	"	"	..
Little George	5·56	4·17	6 B.H.P.	..	"	"	..
Lizzie 222	3·6	2·7	4 B.H.P.	..	"	"	..
Lomen (2)	..	..	6	..	Compound S. condensing	"	..
Loyalty	100·6	24	35	78	"	"	..
Lupe	4	3	10 B.H.P.	..	Oil-engines	"	..
Lyttelton (Auckland)	207	24	80	234	Compound S. condensing	..	Paddle.
Lyttelton (Lyttelton)	292	0·88	133	..	"	Twin	..
Magic	93	58·3	60 B.H.P.	..	Oil-engines	"	..
Maheno	35	24	90 B.H.P.	..	"	"	..
Mahino	7·7	5·92	5 B.H.P.	..	"	Single	..
Mahua (2)	588	353	28	..	Compound S. condensing	Twin	..
Mahurangi	203	94·5	80	..	"	Single	..
Mahuroto	5·84	4·38	12 B.H.P.	..	Oil-engines	"	..
Mahuta	29	13	10¾	..	Compound S. condensing	"	..
Maidi	16	12	10¾	..	"	"	..
Maitai	3,393	1,888	490	3,327	Triple-ex. S. condensing	"	..
Majestic	4·48	3·36	7 B.H.P.	..	Oil-engines	"	..
Makere	3·62	2·52	4 B.H.P.	..	"	"	..
Mako	4·72	3·56	12 B.H.P.	..	"	"	..
Makura	2·83	2	7 B.H.P.	..	"	"	..
Mana (Riverton)	3·25	2·44	4 B.H.P.	..	"	"	..
Mana (Wellington)	134	76·6	25	134	Compound S. condensing	"	..
Mana (Westport) (2)	196	50	90	..	"	..	Paddle.
Manaroa	122	77·5	24	147	"	Single	..
Mangapapa	164	87	28	131	"	"	..
Manokutuku (2)	4·33	3·25	16 B.H.P.	..	Oil-engines	"	..
Manuka	4·36	3·27	2¾	..	Compound S. condensing	"	..
Manuwai (Tauranga)	18	4·7	30 B.H.P.	..	Oil-engines	"	..
Manuwai (Wanganui)	117	94	30	..	High pressure	..	Stern wheel.
Maori (Dunedin)	3,398	1,432	..	5,859	Turbine	Triple	..
Maori (Picton)	7·86	5·9	8 B.H.P.	..	Oil-engines	Single	..
Maori (Riverton)	4·47	3 36	5 B.H.P.	..	"	"	..
Maori (Taupo)	2·8	2·1	5 B.H.P.	..	"	"	..
Mapourika	1,202	718	130	1,194	Triple-ex. S. condensing	"	..
Marama	2·13	1·6	6 B.H.P.	..	Oil-engines	"	..
Mararoa (Dunedin)	2,598	1,380	530	3,238	Triple-ex. S. condensing	"	..
Mararoa (Rotorua)	2·83	2·13	6 B.H.P.	..	Oil-engines	"	..
Mareno	5·83	4·38	5 B.H.P.	..	"	"	..
Maritana	6·45	4·84	8 B.H.P.	..	"	"	..
Marakopa	4·8	3·6	7 B.H.P.	..	"	"	..
Maroro	7	5·2	8 B.H.P.	..	"	"	..
Mascotte (Auckland)	..	..	5	..	High pressure	"	..
Mascotte (Wanganui)	..	..	12	..	"	"	..
Matakokiri	4·5	3·3	10 B.H.P.	..	Oil-engines	"	..
Matarere (2)	..	..	1·7	..	Compound S. condensing	"	..
Matariki (Lyttelton)	5·42	4·07	10 B.H.P.	..	Oil-engines	"	..
Matariki (Tuakau)	3·69	2·76	6 B.H.P.	..	"	"	..
Matuku	..	..	4	..	High pressure	"	..
Maude	1·4	1	3 B.H.P.	..	Oil-engines	"	..
Maui	557·5	250·8	80	534	Triple-ex. S. condensing	Twin	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Tons Measurement. Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle.
Mavis (Dunedin) ..	4·39	3·3	10 B.H.P.	..	Oil-engines	Single..	..
Mavis (Onehunga) ..	3·3	2·4	6 B.H.P.	..	"	" ..	..
Mavis (Stewart Island)	4·29	3·22	5 B.H.P.	..	"	" ..	
Mawhera	647·9	291·5	168	..	Triple-ex. S. condensing	Twin ..	..
May (Awanui) ..	3·17	2·38	4 B.H.P.	..	Oil-engines	Single..	..
May (Wanganui) ..	1·8	1·4	4 B.H.P.	..	"	" ..	..
May Howard (2) ..	64	55	45 B.H.P.	..	"	" ..	..
Mere Ana	4·93	3·7	12 B.H P.	..	"	" ..	..
Mere Mere (2) ..	..	..	3	..	High pressure	" ..	..
Merlin (Auckland) ..	..	..	4	..	Compound S. condensing	" ..	..
Merlin (Picton) ..	3·62	2·72	5 B.H.P.	..	Oil-engines	" ..	..
Mermaid (Admiralty Bay)	5·7	4·3	7 B.H.P.	..	"	" ..	..
Mermaid (Auckland) ..	5·12	3·84	7 B.H.P.	..	"	" ..	..
Mermaid (Kohukohu)	1·71	1·28	3 B.H.P.	..	"	" ..	..
Meteor	2·83	2·13	5 B.H.P.	..	"	" ..	..
Midlothian	4·37	3·28	5 B.H.P.	..	"	" ..	..
Mikado	7·77	5·87	12 B.H.P.	..	"	" ..	..
Minoru	3·3	2·5	10 B.H P.	..	"	" ..	..
Miro	4·4	3·3	4 B.H.P.	..	"	" ..	..
Mirree	2·4	1·8	5 B.H.P.	..	"	" ..	..
Mizpah (Pelorus Sound)	6	4·5	20 B.H.P.	..	"	Twin ..	..
Mizpah (Picton) ..	3·85	3	5 B.H.P.	..	"	Single..	..
Moa (Taieri Mouth) (2)	..	5	4 B.H.P.	..	"	" ..	..
Moa (Wanganui) ..	4·4	3·4	10 B.H.P.	..	"	" ..	..
Moana (Dunedin) ..	3,914·7	2,414	372	4,216	Triple-ex. S. condensing	" ..	..
Moana (Moana) ..	7·8	5·8	7	..	High pressure	" ..	..
Moana (Picton) ..	5·66	4·24	8 B.H.P.	..	Oil-engines	" ..	..
Moana (Tryphena) ..	3·12	2·34	4½ B.H.P.	..	"	" ..	..
Moata	4·26	3·2	5 B.H.P.	..	"	" ..	..
Moeraki	4,392	2,714·7	357	4,082	Triple-ex. S. condensing	Twin ..	..
Moerangi (Auckland)..	6·87	5·17	16 B.H.P.	..	Oil-engines	" ..	..
Moerangi (Dunedin) ..	24·7	15·5	27½ B.H.P.	..	"	Single..	..
Mokoia (Dunedin) ..	3,502	2,154	255	2,944	Triple-ex. S. condensing	" ..	..
Mokoia (Rotorua) ..	2·6	1·95	5¾ B.H.P.	..	Oil-engines	" ..	..
Monica II	61·84	29·45	20	..	Compound S. condensing	" ..	..
Monowai	3,433	2,136	290	2,885	Triple-ex. S. condensing	" ..	..
Mosca	1·9	1·4	4 B.H.P.	..	Oil-engines	" ..	..
Moturata	24·4	12·5	25 B.H.P.	..	"	" ..	..
Moura	2,026	1,247	275	1,865	Triple-ex. S. condensing	Twin ..	..
Mulliogh	59	46	15	..	High pressure	Single..	..
Muratai	6·5	4·8	14 B.H.P.	..	Oil-engines	Twin .	..
Muriel (Napier) ..	58·9	15·5	18	..	Compound S. condensing	Single..	..
Muriel (Stewart Island)	4·4	3·3	5 B.H.P.	..	Oil-engines	" ..	..
Murihiku	558	368	70	524	Triple-ex. S. condensing	Twin ..	..
Myna	8·3	6·25	5	..	High pressure	Single..	..
Myrtle	1·7	1·2	4 B.H.P.	..	Oil-engines	" ..	..
Namu	2·15	1·6	3 B.H.P.	..	"	" ..	..
Napier	70·8	48	30	86	Compound S. condensing	" ..	..
Natone	72	49	24	..	"	" ..	..
Naumai (Kaipara) ..	47	28·6	12	..	"	" ..	..
Naumai (Kawhia) ..	6·5	4·8	5 B.H.P.	..	Oil-engines	" ..	..
Nautilus	8	6	6 B.H.P.	..	"	" ..	..
Navua	2,929	1,812	220	1,978	Triple-ex. S. condensing	Twin ..	..
Nellie Mason ..	20	13·6	15 B.H.P.	..	Oil-engines	Single..	..
Nelly	3·9	3	8 B.H.P.	..	"	" ..	..
Neptune	2·5	1·87	6 B.H.P.	..	"	" ..	..
Never Despair ..	..	..	1½	..	High pressure	" ..	..
Ngahere	1,090	556	118	742	Triple-ex. S. condensing	" ..	..
Ngapuhi	691	299	160	675	"	Twin ..	..
Ngaru	4	3	6 B.H.P.	..	Oil-engines	Single..	..
Ngatiawa	451	220	55	415	Triple-ex. S. condensing	Twin ..	..
Ngatoro	1,137	583	118	724	"	Single..	..
Niagara	6·7	5·1	10 B.H.P.	..	Oil-engines	" ..	..
Nick	9·86	5·6	25 B.H.P.	..	"	" ..	..
Nicola	5·8	4·4	20 B.H.P.	..	"	" ..	..
Nikau (Nelson) ..	247·6	98·3	54·6	245	Compound S. condensing	Twin ..	..
Nikau (Queen Charlotte Sound	2·2	1·65	5 B.H.P.	..	Oil-engines	Single..	..
Nimrod (Auckland) ..	4·8	3·6	32 B.H.P.	..	"	" ..	..
Nimrod (Rotorua) ..	2·28	1·63	3½ B.H.P.	..	"	" ..	..
Nina	..	..	2½	..	Compound S. condensing	" ..	..
Nita	3·7	2·7	5 B.H.P.	..	Oil-engines	" ..	..
Nopera	3·82	2·87	5 B.H.P.	..	"	" ..	..
Nora Niven ..	116	56·6	35	187	Triple-ex. S. condensing	" ..	..
Nui	5·37	4·03	10 B.H.P.	..	Oil-engines	" ..	..
Nydia	1·5	1·13	4 B.H.P.	..	"	" ..	..
Ohinemuri	114	73	30	143	Compound S. condensing	" ..	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Tons Measurement. Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle.
Ohura	50	34	25	..	Quadruple-ex. S. conden.	Twin ..	..
O.K.	5·7	4·3	14 B.H.P.	..	Oil-engines	Single..	..
Oleo	14·3	4·88	20 B.H.P.	..	"	" ..	..
Oline (2)	2·25	1·75	10 B.H.P.	..	"	" ..	..
Onewa	73·5	31·3	15·5	..	Compound S. condensing	" ..	..
Ongarue	10	7·5	35 B.H.P.	..	Oil-engines	" ..	..
Onoke	1·4	1·05	3¾ B.H.P.	..	"	" ..	..
Oparau	6·9	5·1	5 B.H.P.	..	"	" ..	..
Opawa	110	64	18	86	Compound S. condensing	" ..	..
Opouri	570·5	218·2	86	608	Triple-ex. S. condensing	" ..	..
Orakei	4	3	10 B.H.P.	..	Oil-engines	" ..	..
Orete	118·1	91·78	60 B.H.P.	..	"	" ..	..
Orewa	58·7	37·2	17	79	Compound S. condensing	" ..	..
Orira	1·48	1·11	4 B.H.P.	..	Oil-engines	" ..	..
Osprey	219	138	70	..	Compound S. condensing	..	Paddle.
Otara	4·4	3·3	12 B.H.P.	..	Oil-engines	Single..	..
Otunui	15·3	11·5	35 B.H.P.	..	"	" ..	..
Paeroa	91	45	25	74	Compound S. condensing	" ..	..
Pahiki	..	13·8	10 B.H.P.	..	Oil-engines	" ..	..
Pakeha	7·74	5·81	12 B.H.P.	..	"	" ..	..
Palatine	4·9	3·08	4 B.H.P.	..	"	" ..	..
Pandora (2)	5·9	4·5	14 B.H.P.	..	"	" ..	..
Pania	55·9	34·9	11	..	Compound S. condensing	" ..	..
Panirau (2)	3·81	2·86	20 B.H.P.	..	Oil-engines	Twin ..	..
Pararoa	5·6	4·2	8 B.H.P.	..	"	Single..	..
Paritutu	564·2	232·9	90	648	Triple-ex. S. condensing	Twin ..	..
Parua	4	3	10 B.H.P.	..	Oil-engines	Single..	..
Pateena	1,212	550	250	1,986	Compound S. condensing	" ..	..
Pearl (Kaipara) (2) ..	14	9	7	..	High pressure	" ..	..
Pearl (Maori Bay) ..	2·95	2·21	5 B.H.P.	..	Oil-engines	" ..	..
Pearleen	12·72	5·78	10 B.H.P.	..	"	Twin ..	..
Peerless	5·7	4·3	26 B.H.P.	..	"	Single..	..
Pelican	161	1	57	298	Triple-ex. S. condensing	Twin ..	..
Pelorus (Auckland) ..	3·78	2·8	12 B.H.P.	..	Oil-engines	Single..	..
Pelorus (Havelock) ..	24	18	40 B.H.P.	..	"	" ..	..
Petone	708	388	82	490	Triple-ex. S. condensing	" ..	..
Petrel	4·9	3·68	10 B.H.P.	..	Oil-engines	" ..	..
Phantom	44	18	11	..	Compound S. condensing	" ..	..
Phœbe	5·4	4	10 B.H.P.	..	Oil-engines	" ..	..
Phyllis (Hokitika) ..	1·89	1·42	3 B.H.P.	..	"	" ..	..
Phyllis (Te Kopuru) ..	7·12	5·34	1·7	..	Compound S. condensing	" ..	..
Pihinga	3·5	2·5	5 B.H.P.	..	Oil-engines	" ..	..
Pilot (Lyttelton) ..	30·9	10·7	13	..	Compound S. condensing	" ..	..
Pilot (Wellington) ..	39	26	15	..	Triple-ex. S. condensing	" ..	..
Pioneer	1·5	1·17	4 B.H.P.	..	Oil-engines	" ..	..
Pitoitoi (Auckland) ..	81·1	27·6	13·5	..	Compound S. condensing	" ..	..
Pitoitoi (Waitara) ..	72·5	19	13·5	..	"	" ..	..
Planet	14	4	8·5	..	"	" ..	..
Plucky	81	29	40	271	"	" ..	..
Poherua	1,174	749	128	683	Triple-ex. S. condensing	" ..	..
Portare (2)	11·34	8·5	13½ B.H.P.	..	Oil-engines	" ..	..
Presto	..	..	3	..	Compound S. condensing	" ..	..
Progress (2)	244	112·2	45	162	"	" ..	..
Pukaki (2)	1,444	917	110	645	Quadruple-ex. S. conden.	" ..	..
Pukeore (2)	4·9	3·7	7 B.H.P.	..	Oil-engines	" ..	..
Pupuke	137·9	68·2	28	..	Compound S. condensing	Twin ..	..
Purau	51·8	32·8	18	..	"	Single..	..
Putiki	408	157	60	281	"	" ..	..
Queen	3·31	2·49	6 B.H.P.	..	Oil-engines	" ..	..
Queen of Beauty ..	4·8	3·6	16 B.H.P.	..	"	" ..	..
Queen of the South ..	197	121	40	182	Compound S. condensing	" ..	..
Rakanoa	2,246	1,393	200	938	Triple-ex. S. condensing	" ..	..
Rakiura (Dunedin) ..	127	81·68	25	108	Compound S. condensing	" ..	..
Rakiura (Stewart Island)	17·8	13·4	10 B.H.P.	..	Oil-engines	" ..	..
Ralaco	3·2	2·4	10 B.H.P.	..	"	" ..	..
Rangi (Pelorus Sound)	6·18	4·16	8 B.H.P.	..	"	" ..	..
Rangi (Tuakau) ..	2·9	2	4½ B.H.P.	..	"	" ..	..
Rangimahora ..	3·1	2·4	10 B.H.P.	..	"	" ..	..
Rangiriri	2·9	2·1	6 B.H.P.	..	"	" ..	..
Rarawa (2)	1,071	460	140	1,003	Triple-ex. S. condensing	Twin ..	..
Ratanui	2·5	2	3 B.H.P.	..	Oil-engines	Single..	..
Rawhiti (Stewart Island)	3·95	2·97	5 B.H.P.	..	"	" ..	..
Rawhiti (Waikato) ..	6·1	4·6	5 B.H.P.	..	"	" ..	..
Redwing	6·6	5	12 B.H.P.	..	"	" ..	..
Regal (Pelorus Sound)	2	1·5	10 B.H.P.	..	"	" ..	..
Regal (Stewart Island)	2·21	1·66	5 B.H.P.	..	"	" ..	..
Regal II	4·4	3·3	20 B.H.P.	..	"	" ..	..
Regulus	584·1	227·2	150	695	Compound S. condensing	Twin ..	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Tons Measurement. Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle.
Reliance (Picton) ..	3·16	2·37	1	..	High pressure	Single..	..
Reliance (Raglan) ..	3·4	2·5	4 B.H.P.	..	Oil-engines	" ..	..
Reliance (Young's Point)	7·34	5·5	14 B.H.P.	..	"	" ..	..
Rene (2)	4·8	3·6	10 B.H.P.	..	"	" ..	..
Result	28	18	10	..	Compound S. condensing	" ..	..
Rimu	358	144	95	526	Triple-ex. S. condensing	Twin ..	..
Ripple (Hokianga) ..	2·1	1·6	6 B.H.P.	..	Oil-engines	Single..	..
Ripple (Lyttelton) ..	412	187	80	290	Triple-ex. S. condensing	" ..	..
Ripple (Onehunga) ..	10·2	7·7	5 B.H.P.	..	Oil-engines	" ..	..
Rita	40·18	5·15	11	..	Compound S. condensing	" ..	..
Roamer	5·98	4·49	8½ B.H.P.	..	Oil-engines	" ..	..
Rodesian	4·8	3·6	7 B.H.P.	..	"	" ..	..
Roko	4·48	3·36	8 B.H.P.	..	"	" ..	..
Rona	5·4	4	12 B.H.P.	..	"	" ..	..
Ronaku	6	4·5	55 B.H.P.	..	"	" ..	..
Rosamond	721	462	90	450	Compound S. condensing	" ..	..
Rose	5·8	4·4	10 B.H.P.	..	Oil-engines	" ..	..
Rotoiti	7·9	5·8	30 B.H.P.	..	"	" ..	..
Rotokohu	14·6	11	8	..	Compound S. condensing	" ..	..
Rotomahana ..	183	139	45	228	"	" ..	..
Rotongaro	5·5	4·2	14 B.H.P.	..	Oil-engines	" ..	..
Rubi Seddon (2) ..	528	348	80	..	Triple-ex. S. condensing	Twin ..	..
Ruru (Auckland) ..	31	11	10	..	Compound S. condensing	Single..	..
Ruru (Napier) ..	158	57	50	223	"	" ..	..
Sarah	1·15	0·86	3 B.H.P.	..	Oil-engines	" ..	..
Savaii (2)	54·66	31·05	16	..	Compound S. condensing	" ..	..
Scout	5·3	4	20 B.H.P.	..	Oil-engines	" ..	..
Sea Queen I	15·8	9·9	25½ B.H.P.	..	"	" ..	..
Seawolf	7·3	5·5	28 B.H.P.	..	"	" ..	..
Settler (Kaipara) ..	16·6	8·3	7	..	Compound condensing ..	" ..	..
Settler (Thames) ..	8	6	18 B.H.P.	..	Oil-engines	" ..	..
Shamrock	109	60	120 B.H.P.	..	"	Twin ..	..
Sir William Wallace ..	44	30	20	..	Compound S. condensing	Single..	..
Sonoma (2)	..	..	13	..	High pressure	" ..	..
Southern Cross ..	682	403	117	357	Triple-ex. S. condensing	" ..	..
Southern Isle ..	83·4	58·9	28 B.H.P.	..	Oil-engines	Twin ..	..
Sparrow (2)	..	..	1½	..	Compound S. condensing	Single..	..
Special	6.45	4·84	..	..	Oil-engines	" ..	..
Speed	1·1	0·82	2 B.H.P.	..	"	" ..	..
Speedy	4·16	3·12	5 B.H.P.	..	"	" ..	..
Spray	2·6	2	3 B.H.P.	..	"	" ..	..
Squall	368	133	60	271	Compound S. condensing	" ..	..
Standard	12	9	10 B.H.P.	..	Oil-engines	" ..	..
Stanley	2·8	2·1	7½ B.H.P.	..	"	" ..	..
Stella	4·6	3·5	8 B.H.P.	..	"	" ..	..
Sterling (Auckland) ..	5 6	4·2	28 B.H.P.	..	"	" ..	..
Sterling (Kaipara) ..	96	26	39	172	Compound S. condensing	" ..	..
St. George	3	2·26	8 B.H.P.	..	Oil-engines	" ..	..
St. Mary	1·15	0·87	4 B.H.P.	..	"	" ..	..
Storm	405	185	70	270	Compound S. condensing	" ..	..
Stormbird	217	129	40	203	"	" ..	..
Stromboli	2·94	2·2	5 B.H.P.	..	Oil-engines	" ..	..
Success	11·04	8·28	8 B.H.P.	..	"	" ..	..
Sumner (2)	167	94	35	..	Compound S. condensing	" ..	..
Swan (Mokau) (2) ..	6·99	5·25	10 B.H.P.	..	Oil-engines	" ..	..
Swan (Napier) ..	23·7	16·1	10	..	Compound S. condensing	" ..	..
Sylph (2)	..	5	8	..	High pressure	" ..	..
Sylvia	4·8	3·6	9 B.H.P.	..	Oil-engines	" ..	..
Tahawai	11·9	9	14 B.H.P.	..	"	" ..	..
Tahuna	3·4	2·6	8 B.H.P.	..	"	" ..	..
Taihoa	2·4	1·8	4 B.H.P.	..	"	" ..	..
Tainui (Port Fitzroy) ..	3·12	2·3	6 B.H.P.	..	"	" ..	..
Tainui (Waitara) ..	128	59·8	24	151	Compound S. condensing	" ..	..
Takapuna	1,036	472	165	1,360	"	" ..	..
Takitimo	3·31	2·46	5 B.H.P.	..	Oil-engines	" ..	..
Talune	2,086	1,370	255	1,660	Triple-ex. S. condensing	" ..	..
Tanfield Lea ..	4·6	3·15	12 B.H.P.	..	Oil-engines	" ..	..
Tangaroa	189	109	70	..	Compound S. condensing	Twin ..	..
Tangihua (2) ..	31	20	15	..	"	Single..	..
Taniwha (Auckland) ..	263	191	40	..	"	Twin ..	..
Taniwha (Timaru) ..	..	16	16	..	Ordinary condensing ..	Single ..	..
Tarakihi	..	..	4	..	High pressure	" ..	..
Tarawera	2,003	1,269	250	1,503	Compound S. condensing	" ..	..
Tasman (2)	178·5	87·1	38	198	"	Twin ..	..
Tauranganui ..	3·5	2·6	8 B.H.P.	..	Oil-engines	Single..	..
Taviuni	1,465	978·6	135	931	Quadruple-ex. S. conden.	" ..	..
Tawera (Auckland) ..	..	..	8	..	High pressure	" ..	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Tons Measurement. Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery.	Screw.	Paddle.
Tawera (Auckland) ..	51·5	43·65	40 B.H.P.	..	Oil-engines	Single..	..
Tawera (Taupo) ..	2·16	1·6	7½ B.H.P.	..	"	" ..	..
Te Anau	1,652	1,028	250	1,238	Compound S. condensing	" ..	..
Te Aumiti	4·25	3·2	10 B.H.P.	..	Oil-engines	" ..	..
Te Awhina (2) ..	220	1·52	99	588	Triple-ex. S. condensing	Twin ..	..
Te Kooti	3·04	2·28	5 B.H.P.	..	Oil-engines	Single..	..
Te Kura	2·4	1·8	7 B.H.P.	..	"	" ..	..
Te Maika	6	4·6	10 B.H.P.	..	"	" ..	..
Te Pioneer	36·2	24·5	13	..	Compound S. condensing	" ..	..
Tepua	3·5	2·6	10 B.H.P.	..	Oil-engines	" ..	..
Te Puke Lass (2) ..	3·96	2·97	15 B.H.P.	..	"	" ..	..
Terawhiti	259·8	46·8	99	846	Triple-ex. S. condensing	" ..	..
Te Rhino	5·52	4·14	5 B.H.P.	..	Oil-engines	" ..	..
Tetio	1·2	0·92	3 B.H.P.	..	"	" ..	..
Te Whaka	323·6	140·5	45	..	Compound S. condensing	" ..	..
Te Wharu	3·84	2·88	7½ B.H.P.	..	Oil engines	" ..	..
The Goshawk ..	238·7	121·9	28	..	Compound S. condensing	" ..	..
The Little Jack (2) ..	..	..	1½	..	High pressure	" ..	..
Thelma (Queenstown)	3·5	2·62	5 B.H.P.	..	Oil-engines	" ..	..
Thelma (Te Kopuru) ..	1·18	0·88	4 B.H.P.	..	"	" ..	..
The Minerva ..	48·2	19·8	14	..	Compound S. condensing	Twin ..	..
The Peregrine ..	244·9	162·1	52·25	..	Triple-ex. S. condensing	Single..	..
Theresa Ward ..	194	9	95	473	"	" ..	..
Thistle (Helensville) ..	12·8	9·64	14 B.H.P.	..	Oil-engines	" ..	..
Thistle (Kaipara) ..	5·72	4·29	5 B.H.P.	..	"	" ..	..
Thistle (Moana) ..	1·98	1·49	4 B.H.P.	..	"	" ..	..
Thistle (Wanganui) ..	96	77	90 B.H.P.	..	"	Twin ..	..
Thomas King (2) ..	98·4	70·4	16	..	Compound S. condensing	Single..	..
Thorneycroft ..	2·1	1·5	6 B.H.P.	..	Oil-engines	" ..	..
Tikirau	6·7	5·1	20 B.H.P.	..	"	" ..	..
Tilikum	9·45	7	13 B.H.P.	..	"	" ..	..
Togo (Auckland) ..	6·32	4·74	12 B.H.P.	..	"	" ..	..
Togo (Wanganui) ..	..	..	14	..	Compound S. condensing	Twin ..	..
Toiler	49·36	27·79	13½	..	"	Single..	..
Tongariro	20	4·04	8·2	..	"	" ..	..
Torea	50·11	23·61	60 B.H.P.	..	Oil-engines	Twin ..	..
Toroa	1·9	1·4	2½ B.H.P.	..	"	Single..	..
Tot	12·65	5·76	16 B.H.P.	..	"	" ..	..
Traveller	..	..	7¾	..	Compound S. condensing	" ..	..
Tuatea (Gisborne) ..	112	58	28	232	"	" ..	..
Tuatea (Raglan) ..	5·7	4·3	8 B.H.P.	..	Oil-engines	" ..	..
Tu Atu	40	30	60 B.H.P.	..	"	Twin ..	..
Tui (Auckland) ..	..	20	6½	..	Compound S. condensing	Single..	..
Tui (Kohukohu) ..	0·64	0·48	1¼ B.H.P.	..	Oil-engines	" ..	..
Tui (Nelson)	1·4	1·05	5 B.H.P.	..	"	" ..	..
Tui (Picton)	1·03	0·7	1½ B.H.P.	..	"	" ..	..
Tui (Rawene) ..	3·6	2·7	5 B.H.P.	..	"	" ..	..
Tui (Taupo)	2·3	1·7	4½ B.H.P.	..	"	" ..	..
Tuirangi	124·4	71·8	22·5	..	Triple-ex. S. condensing	" ..	..
Tukua	13·9	10·5	9 B.H.P.	..	Oil-engines	Twin ..	..
Tuna (2)	..	..	3½	..	Compound S. condensing	Single..	..
Turamakina	3·4	2·5	5 B.H.P.	..	Oil-engines	" ..	..
Turanga	28·4	18·3	25 B.H.P.	..	"	" ..	..
Uira	5·6	4·25	3½ B.H.P.	..	"	" ..	..
Uta	31	23·2	50 B.H.P.	..	"	" ..	..
Vanora	15·06	5·15	24 B.H.P.	..	"	" ..	..
Vectus	32·67	22·2	16 B.H.P.	..	"	" ..	..
Vesper (Auckland) (2)	46·6	19·76	32 B.H.P.	..	"	Twin ..	..
Vesper (Te Kopuru) (2)	4	3	16 B.H.P.	..	"	Single..	..
Victory (Mercer) ..	2·6	1·9	9 B.H.P.	..	"	" ..	..
Victory (Tauranga) (2)	32·57	16·76	30 B.H.P.	..	"	Twin ..	..
Viking (2)	..	5	14 B.H.P.	..	"	Single..	..
Violet	11	8·25	6 B.H.P.	..	"	" ..	..
Vivid	21	6	13	..	Compound S. condensing	" ..	..
Vixen	27·48	14·7	24 B.H.P.	..	Oil-engines	Twin ..	..
Waihora	4,637	2,993	410	1,811	Triple-ex. S. condensing..	Single..	..
Wai-iti	6·63	5	47 B.H.P.	..	Oil-engines	" ..	..
Waikana	153·8	66	200	..	Compound S. condensing	Twin ..	..
Waikare (Rawene) ..	1·7	1·3	4½ B.H.P.	..	Oil-engines	Single..	..
Waikare (Waikato) ..	3·4	2·5	5 B.H.P.	..	"	" ..	..
Waikato	2·57	1·83	6 B.H.P.	..	"	" ..	..
Waikuku	2·5	1·9	5 B.H.P.	..	"	" ..	..
Waima	10	5·78	20 B.H.P.	..	"	" ..	..
Waimarie (Auckland) ..	245	159	48	..	Compound S. condensing	Twin ..	..
Waimarie (Wanganui)	80	53	20	..	High pressure	..	Paddle.
Waimea	454·4	206·8	100	618	Triple-ex. S. condensing	Twin ..	..
Wainui	3·07	2·3	5 B.H.P.	..	Oil-engine	Single..	..
Waione	70	48	80	..	Triple-ex. S. condensing	Twin ..	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 17.—Return of Steamers and Oil-engine Vessels surveyed, etc.—*continued.*

Name of Vessel.	Tons Measurement. Gross.	Tons Measurement. Register.	Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam.	Indicated Horse-power of Home-trade Steamers and of Foreign-going Steamers only.	Description of Machinery:	Screw.	Paddle.
Waiora (Rotorua) ..	3·9	2·9	15 B.H.P.	..	Oil-engines	Single..	..
Waiora (Wanganui) ..	..	..	5	..	Compound S. condensing	" ..	..
Waiotahi	278	167	56	343	"	Twin ..	..
Waipapakouri ..	6·93	5·2	4 B.H.P.	..	Oil-engines	Single..	..
Waipori	1,918	1,229	180	843	Triple-ex. S. condensing	" ..	..
Waipuna	3·4	2·55	7 B.H.P.	..	Oil-engines	" ..	..
Wairau (2)	143·2	59·2	20	137	Compound S. condensing	" ..	..
Waireka (Dunedin) ..	148·8	71·6	49	..	Triple-ex. S. condensing	Twin ..	..
Waireka (Wanganui) ..	6·3	4·7	45 B.H.P.	..	Oil-engines	Single..	..
Wairere	65	41	25	..	High pressure	..	Paddle.
Wairoa (Auckland) (2)	100	49	40	114	Compound S. condensing	Single..	..
Wairoa (Nelson) (2) ..	69·8	47·5	16·5	77	"	" ..	..
Wairoa (Queenstown)	6·51	4·88	10 B.H.P.	..	Oil-engines	" ..	..
Wairoa (Riverton) ..	7·52	5·76	4 B.H.P.	..	"	" ..	..
Wairua (Auckland) ..	285·9	175·4	44	..	Triple-ex. S. condensing	Twin ..	..
Wairua (Wanganui) ..	..	..	5	..	Compound S. condensing	Single..	..
Wairuna	3,947	2,529	396	2,099	Triple-ex. S. condensing	" ..	..
Waitangi (Auckland) (2)	171·2	21·3	66	292	Compound S. condensing	Twin ..	..
Waitangi (Auckland)..	45·3	30·8	60	..	"	Single..	..
Waitara	21·3	16	3½	..	"	" ..	..
Waitaria	3	2·25	5 B.H.P.	..	Oil-engines	" ..	..
Waitata	2·6	2	4 B.H.P.	..	"	" ..	..
Waitemata	24·5	18·4	150 B.H.P.	..	"	Twin ..	..
Waitohi	24	18	10	..	Compound S. condensing	Single..	..
Waituna	4·27	3·21	5 B.H.P.	..	Oil-engines	" ..	..
Waiwera (Auckland) ..	..	..	6	..	Compound S. condensing	" ..	..
Waiwera (Henley) ..	..	..	16 B.H.P.	..	Oil-engines	" ..	..
Waiwiri	..	..	7¾	..	Compound S. condensing	" ..	..
Wakaiti	19·66	14·74	34 B.H.P.	..	Oil-engines	Twin ..	..
Wakanui	7·6	5·7	20 B.H.P.	..	"	Single..	..
Wakapai	..	..	10	..	Compound S. condensing	" ..	..
Wakatere (Auckland)..	441	157	140	..	"	..	Paddle.
Wakatere (Raglan) ..	4·6	3·7	5 B.H.P.	..	Oil-engines	Single..	..
Wakatu	157	95	30	138	Compound S. condensing	" ..	..
Wanaka	2,421	1,572	280	1,030	Triple-ex. S. condensing	" ..	..
Warrimoo	3528·8	2076·3	490	3,506	"	" ..	..
Wave (2)	39·86	29	38 B.H.P.	..	Oil-engines	Twin ..	..
Waverley	156	93	25	128	Compound S. condensing	" ..	..
Weka (Auckland) ..	127	86	27	..	"	Single..	..
Weka (Napier) ..	89	52	20	94	"	" ..	..
Whaka	2·9	2·19	10 B.H.P.	..	Oil-engines	" ..	..
Whangape	2,931	1,900	280	1,106	Triple-ex. S. condensing	" ..	..
Wharepapa	10·85	4·26	12 B.H.P.	..	Oil-engines	" ..	..
Whati (2)	..	..	6½	..	Compound S. condensing	" ..	..
Whisper	4·6	3·4	1·3	..	"	" ..	..
Will Watch	90·74	48·24	45 B.H.P.	..	Oil-engines	" ..	..
Wootton	151	89·6	33	119	Compound S. condensing	" ..	..
Young Bungaree ..	80·5	1·6	35	152	"	" ..	..
Zephyr	4·96	3·67	7 B.H.P.	..	Oil-engines	" ..	..
Zior	1·9	1·4	6 B.H.P.	..	"	" ..	..
Zoe	2·1	1·6	4½ B.H.P.	..	"	" ..	..
Zomar	4·6	3·5	12 B.H.P.	..	"	" ..	..

Note.—The figure (2) after the name of a vessel shows vessel to have been surveyed twice.

No. 18.—Return of Sailing-vessels surveyed during the Financial Year ended 31st March, 1913, with Particulars of Tonnage, etc.

Name of Vessel.	Tons Measurement. Gross.	Register	Description.	Times surveyed.
Albatross	50·22	45·32	Ketch	1
Alert	113·63	98·12	Schooner	1
Alma	63·02	55·96	,,	1
Amelia Sims	121·33	97·89	,,	1
Annie Hill	128·20	121·40	,,	1
Aratapu	121·80	121·80	Brigantine	1
Argus	36·00	36·00	Ketch	1
Arrah-na-Pogue	186·52	99·95	Brigantine	1
Awanui	91·96	85·00	Schooner	1
Bee	32·03	24·35	Ketch	1
Bessie	8·98	8·98	Cutter	1
Bravo	118·40	99·30	Schooner	1
Briton	23·62	18·71	Ketch	1
Cead Mille Failthe	88·40	62·70	Schooner	1
Clifton	21·66	17·97	Ketch	1
Clio	80·50	80·50	Schooner	1
Combine	55·70	24·30	,,	1
Comet	22·40	19·70	Ketch	1
Coronation	94·20	85·30	,,	1
Dandy	105·30	82·10	Scow	1
Deveron	25·70	25·70	Cutter	1
Dominion	38·10	24·90	Ketch	1
Edith	25·52	19·48	Scow	1
Edna	22·45	22·45	Ketch	1
Eliza Firth	143·40	143·40	Schooner	2
Esme	33·40	19·70	Ketch	1
Ethel Wells	32·90	19·40	,,	1
Eunice	189·90	171·40	Schooner	2
Eva	56·29	20·78	,,	1
Falcon	97·50	97·50	,,	1
Gannet	24·90	24·90	Ketch	1
Gem	29·43	20·44	Schooner	1
Glenae	18·56	10·77	Ketch	1
Herald	82·50	73·00	Schooner	1
Hero	65·30	56·40	,,	1
Huia	27·50	19·70	,,	1
Huon Belle	42·60	42·60	Ketch	1
Ida	29·28	24·60	Scow	1
Inez Dean	14·97	12·42	Ketch	1
Irene	37·20	37·20	Schooner	1
Isabella de Fraine	109·60	93·10	Ketch	1
Jane Gifford	34·25	19·86	Scow	1
Janet	26·03	21·93	Cutter	1
Jessie Craig	680·40	634·00	Barque	1
Joseph Craig	714·00	694·00	,,	1
Katie S.	34·20	19·80	Ketch	1
Kiatere	16·10	11·10	,,	1
Kiatia	32·80	19·90	,,	1
Kitty Fraser	47·20	24·60	Schooner	1
Kiwi	21·19	18·88	Cutter	1
Korora	177·80	160·40	Schooner	1
Lady of the Lake	21·60	18·90	,,	1
Lena Gladys	34·00	24·00	Scow	1
Lily (Lyttelton)	84·37	84·37	Schooner	1
Lily (Nelson)	15·75	15·75	Ketch	2
Lizette	39·32	24·89	,,	1
Lizzie Taylor	78·30	77·20	Schooner	1
Maggie	27·00	19·90	Scow	1
Maid of Italy	15·00	15·00	Cutter	1
Marjorie Craig	540·70	498·80	Barque	1
May	43·50	43·50	Schooner	1
Moa (Auckland)	127·00	98·70	,,	1
Moa (Napier)	78·59	66·41	Lighter	1
Moehau	22·70	22·70	Schooner	1
Moonah	88·20	83·40	Ketch	1
Morning Light	92·10	92·10	Schooner	1
Ngaru	73·10	65·60	,,	1
Northern Chief	287·00	263·00	Barque	1
Norwest	28·50	17·70	Ketch	1
Old Jack	14·00	14·00	,,	1
Onerahi	47·00	24·65	,,	1
Orakei	32·00	32·00	Scow	1
Pearl Kaspar	51·00	24·70	Ketch	1
Ranger	65·40	64·20	Scow	1
Rangi	98·50	85·90	Schooner	1
Reliance	80·10	76·11	Scow	1
Result	22·90	22·90	Ketch	1
Rimu	54·47	48·91	Schooner	1
Rona	678·10	617·60	Barque	1
Rosalie	..	7·00	Cutter	1
Saucy Kate	40·73	24·99	Schooner	1
Sea Gull	19·10	19·10	Cutter	1
Scot	26·30	17·90	Ketch	1
Stag	18·93	18·93	Cutter	1
Stanley	89·51	89·51	Schooner	1
Talisman	92·60	83·60	,,	1
Tally-ho	51·86	51·13	Scow	2
Tararawa	44·07	44·07	Ketch	1
Tay	..	15·00	Cutter	1
The Lee	22·59	18·77	,,	1
The Portland	73·00	59·10	Schooner	1
Three Cheers	103·30	97·30	Scow	1
Transit	21·40	18·90	Ketch	1
Trusty	59·08	59·08	Lighter	1
Tuahine	26·75	21·97	Ketch	1
Venture	19·16	18·65	Scow	1
Vindex	40·90	23·20	Ketch	1
Violet	24·10	19·90	,,	1
Waikonini	67·72	22·93	Schooner	1
Wanderer	94·00	85·00	,,	1
Wanganui	351·52	308·64	Barquentine	2
Welcome	65·70	61·50	Schooner	1
Winnie	24·10	19·00	Ketch	1
Ysabel	148·50	148·50	Schooner	1

No. 19.—Return of Vessels surveyed for Seaworthiness, etc., from the 1st April, 1912, to 31st March, 1913.

Date of Survey.	Name of Vessel.	Where surveyed.	Nature of Casualty, &c.
1912.			
Jan. 26, 30	S.s. Chelmsford	Auckland	During the trip of this vessel from Ohiwa to Auckland, on the 22nd January, 1912, the crank-shaft of the main engines broke. The vessel was towed to Auckland by the s.s. "Aupouri," where a new crank-shaft was made and fitted.
Feb. 17	S.s. Wootton	Lyttelton	On the 17th February, 1912, this vessel was steaming between Kaiapoi and Lyttelton, when it was noticed that a patch on the port furnace and several tubes at the combustion-chamber end were leaking. The leaks were due to scale accumulating between the tubes and on the furnaces next to the tube-plate. On arrival at Lyttelton the plain tubes were drawn and renewed and the boiler cleaned out. One patch was renewed, and another was enlarged and refitted. Both of the furnaces at the back end were re-riveted on the top. The boiler was then tested by hydraulic pressure and found to be tight.

No. 19.—Return of Vessels surveyed for Seaworthiness, etc.—*continued.*

Date of Survey.	Name of Vessel.	Where surveyed.	Nature of Casualty, &c.
1912.			
Mar. 3 ..	O.e.v. Vixen ..	Auckland ..	As this vessel was crossing the Matata bar on a trip to Auckland, on the 28th February, 1912, the top gudgeon of the rudder broke and the bottom rudder-pintle carried away. The vessel returned to Matata, where temporary repairs were effected enabling her to complete her trip to Auckland. A new steel bottom rudder-pintle was made, and straps fitted to both gudgeons.
Mar. 28 ..	Joseph Sims (schooner)	Lyttelton ..	On the 20th March, 1912, when off Cape Egmont on a voyage from Kaipara to Dunedin, this vessel was struck by a heavy sea which washed away the galley and a boat and stove in the port bulwarks. The vessel put into Lyttelton for repairs, where a new galley was fitted, a new boat put on board, and the bulwarks repaired. The vessel then continued on her voyage to Dunedin.
Mar. 30 ..	S.s. Monowai ..	Lyttelton ..	This vessel was proceeding down Otago Harbour on a trip from Dunedin to Lyttelton, on the 29th March, 1912, when she grounded. She remained aground from 2.50 p.m. till 10.40 p.m., when she got off by means of her own machinery and proceeded on her voyage. On arrival at Lyttelton a survey was made, when it was found that no damage had been done to the vessel.
April 1 ..	S.s. Taviuni ..	Lyttelton ..	When off Cape Campbell on the 29th March, 1912, proceeding from Wellington to Lyttelton, a stud in the intermediate piston broke, causing a fracture of the junk-ring. On arrival at Lyttelton a new junk-ring was made and fitted.
April 8 ..	S.s. Pukaki ..	Lyttelton ..	Whilst lying at Lyttelton Wharf this vessel bumped against a projecting bolt in a pile, which made a hole in the hull-plating, causing a leak. A covering patch was fitted over the hole.
April 24 ..	S.s. Cygnet ..	Lyttelton ..	On the 23rd April, 1912, this vessel was proceeding from Lyttelton to Akaroa when the h.p. piston broke. Through the breaking of the piston the piston and connecting-rod were bent, and the bolts in the bottom end of the connecting-rod were fractured. The vessel returned to Lyttelton, where a new piston, new end on the piston-rod, and new bottom end-bolts were fitted, and the connecting-rod straightened.
April 26 ..	S.s. Arahura ..	Wellington ..	On the 20th April, 1912, when crossing Cook Strait on a voyage from Wellington to Picton, a slight leak was discovered in the neck of the starboard main steam-pipe. It was, however, decided to continue the voyage to the West Coast and back to Wellington. The pipe was repaired and afterwards tested to 360 lb. hydraulic pressure before being placed on board.
April 27 ..	S.s. Chelmsford ..	Auckland ..	This vessel was going from Tairua to Auckland *via* Mercury Bay on the 27th April, 1912, when the intermediate shaft of the main engines broke close to the cast-iron coupling. The tug "Pelican" towed the vessel into Mercury Bay, where temporary repairs were effected. The vessel proceeded to Auckland, where a new intermediate shaft was fitted.
May 6 ..	S.s. Plucky ..	Dunedin ..	When proceeding down Otago Harbour on the 4th May, 1912, this vessel was forced against a beacon by a wave and a strong ebb tide. Upon examination of the hull it was found there were two cracks in the plating in the strake below the sheer-strake in way of bunkers on the starboard side. A butt strap was fitted over the cracks, and bosom-pieces were fitted to two of the frames.
May 8, 10, 13	S.s. Surrey ..	Dunedin ..	On the 9th February, 1912, this vessel was crossing the Bay of Biscay in rough weather, on a voyage from Liverpool to New Zealand, when a leak was discovered on the port side of vessel in way of No. 3 hold. On examination it was found that the plates were dented, and it is supposed the damage was done when the vessel bumped against a pile entering a lock in the Manchester Canal. On arrival at Port Chalmers the damage was repaired. The twelfth plate in H strake in way of No. 3 hold on the port side was taken off and re-riveted. The plate forward of this was riveted as far as the bulkhead, and five loose rivets were renewed in the fore peak.
April 25; May 4, 14, 17	S.s. Clan Ogilvy ..	Wellington ..	On the 17th April, 1912, when this vessel was half-way on her voyage from Port Chalmers to Australia, the first length of the tunnel shafting broke. Before the engines could be stopped four of the covers of the tunnel-bearings were broken, the thrust-shaft bent, the stools for bearings buckled, and the bulkhead stuffing-box broken. Temporary repairs were effected which enabled the vessel to get to Wellington, where the following repairs were effected: One new length of tunnel shafting was fitted; one length of tunnel shafting was skimmed up in lathe on journals and couplings; the thrust-shaft was straightened; the collars, bearings, and couplings were skimmed up in the lathe, and the thrust-bearing was relined; new covers were fitted to the tunnel-bearings; the stools were repaired, the lower half of the bulkhead stuffing-box was renewed, and three new plates were fitted in the top of tunnel.

No. 19.—Return of Vessels surveyed for Seaworthiness, etc.—*continued.*

Date of Survey.	Name of Vessel.	Where surveyed.	Nature of Casualty, &c.
1912.			
May 21 ..	S.s. Wairau ..	Wanganui ..	When steaming between Mokau and Waitara, on the 21st May, 1912, a fracture was detected in the main steam-pipe. On arrival in port the pipe was taken off and a patch brazed over the crack. After repairs the pipe was tested to 280 lb. hydraulic pressure.
May 28, 29 ..	Ngaru (scow) ..	Kawhia ..	On the 6th May, 1912, this vessel left Kawhia under sail, and just after passing the Heads the wind failed and she drifted ashore on a sandy bottom. She remained fast until the 14th, and was then hove off by the use of the kedge-anchors and the hand-windlass. The vessel fouled her anchor and it penetrated the hull on the starboard bow below the water-line. She was towed back to Kawhia and beached, when the damage caused by the anchor was repaired.
June 3 ..	S.s. Hawera ..	Wellington ..	This vessel left Wellington for Patea on the 1st June, 1912, and when passing the north end of Kapiti Island it was discovered that she was leaking considerably. It was decided to return to Wellington, and on arrival she was placed on the slip. The oakum had come out of part of the seam of the garboard-strake on the starboard side in the way of foremast. The defective seam was recaulked, and all the soft places in the hull were hardened up.
June 8, 14 ..	S.s. Canopus ..	Lyttelton ..	On the 8th June, 1912, through the anchor fouling a pile whilst lying at the Lyttelton Wharf, the hawse-pipe was broken, and two plates in the bow were damaged. A new hawse-pipe was made and fitted, the two plates were renewed, and two of the frames were straightened.
June 17 ..	S.s. Opouri ..	Wellington ..	On the 15th June, 1912, a collision occurred off Point Jerningham, Wellington Harbour, between the s.s. "Opouri," inward bound from Lyttelton, and the s.s. "Kamona," leaving for Westport. There were severe rain-squalls at the time of the mishap. The damage to the vessel consisted of a dent in the top edge of the plating on the port bow; the waterway was crushed in and a small crack was made in the plating just below the moulding; the forecastle-head deck-planking was started from the stem to the windlass, and the plate under the deck was buckled at hawse-pipes. Temporary repairs were effected in Wellington. Permanent repairs were made on the vessel's arrival in Lyttelton. One plate on the bow was cut out and renewed, the waterway was cut out and renewed, and the deck and covering-board were renewed where necessary.
June 27; July 1, 5	S.s. Koonya ..	Napier ..	When this vessel was at Napier on the 27th June, 1912, the rudder-stock was found to be fractured. The rudder was unshipped and a new piece welded into it, about 4 ft. long and a little larger than the original size. Two straps were also riveted round the stock and rudder to strengthen them.
July 5 ..	S.s. Kumara ..	Wellington ..	When lying at anchor in the Gisborne roadstead on the 2nd July, 1912, a crack was detected in the neck of the flange of one length of her main steam-pipe. The pipe was forwarded to Wellington for repairs, where a new piece about 9 in. long was fitted. The pipe was afterwards tested to 360 lb. hydraulic pressure.
July 18, 20..	S.s. The Peregrine	Auckland ..	On the 14th July, 1912, on her ordinary trip from Auckland to Stanley Bay, she went ashore on a rocky bottom near Stanley Point. She soon floated off, but on examination it was found that about 10 ft. of the deadwood and keel had been damaged, and that all the blades had been stripped off the propeller. The damaged portions of the keel and the deadwood were renewed, and a new bow rudder and four new propeller-blades were fitted.
July 29 ..	S.s. Mararoa ..	Lyttelton ..	On the 29th July, 1912, this vessel was lying at Lyttelton Wharf, when a fracture was discovered in the thrust-shaft. A new shaft was made and fitted in position.
July 29 ..	Ranger (scow) ..	Auckland ..	This vessel was bound from Whakatane to Whitianga on the 20th June, 1912. She was trying to beat to an anchorage under Whale Island during a northerly gale when the main-sail carried away and the foresail split in three places. On account of this damage the vessel drifted on the beach six miles west of Whakatane River. She was got off on the 23rd June, and proceeded to Tauranga for repairs. New deadwood was fitted aft and a new stern-post provided. The rudder was repaired, some new sheathing was put on hull, and the vessel was caulked where required.
July 26; Aug. 3	S.s. Condor ..	Auckland ..	This ferry-steamer left the Victoria Wharf during a fog at 8 o'clock on the morning of the 22nd July, 1912, and was going half-speed when she collided with the ferry-boat "Kestrel." The following repairs were found to be necessary: About 12 ft. of the belting, a number of the stanchions, and several deck-planks were renewed, and the bulwarks were repaired.

No. 19.—Return of Vessels surveyed for Seaworthiness, etc.—*continued.*

Date of Survey.	Name of Vessel.	Where surveyed.	Nature of Casualty, &c.
1912.			
Aug. 3 ..	S.s. Anglo Saxon	Dunedin ..	On the 31st July, 1912, whilst proceeding up Otago Harbour to the Dunedin Wharf, this vessel touched the ground in the channel. On arrival at the wharf a survey was made, when it was found she had received no damage.
Aug. 17 ..	S.s. Myra Fell ..	Auckland ..	This vessel was surveyed afloat on the 17th August, 1912, at Auckland, to enable her to proceed to Sydney, when everything was found in good order and condition.
Aug. 20 ..	S.s. Defender ..	Wellington ..	On the 19th August, 1912, this vessel was lying at the Jervois Quay Wharf, Wellington, when she was run into by the s.s. "John." The bulwarks and the belting round the stern were cut into and the planking under the counter was slightly started. About 6 ft. of the bulwarks and 10 ft. of the rail were renewed, and the planking under the counter was caulked.
Aug. 21 ..	S.s. Taniwha ..	Auckland ..	This vessel was proceeding from Auckland to Paeroa on the 11th August, 1912, and when rounding one of the bends in the Ohinemuri River near Paeroa she struck a snag which was projecting straight out from the bank. A hole about 3 ft. 6 in. long by 6 in. wide was made in the vessel's hull on the starboard side aft, allowing the water to rush in in sufficient quantity to sink her. A patch was put over the hole, the water was pumped out, and the vessel was floated on the 15th August, and towed back to Auckland for repairs. Three new angle-iron frames, a new stringer, and new gusset-plates were fitted. New hull-planking was fitted where required.
Aug. 19, 24	S.s. Kotare ..	Invercargill and Dunedin	This vessel was proceeding from Stewart Island to Oamaru on the 17th August, 1912, when the propeller-shaft broke forward of the stern-gland. Temporary repairs were effected, which enabled the vessel to proceed slowly. She was picked up by the s.s. "Maitai" and towed into Bluff Harbour.
Aug. 23 ..	S.s. Tasman ..	Auckland ..	On a trip from Auckland to Paeroa, on the 21st August, 1912, this vessel's rudder was carried away through striking a snag in Thames River. The vessel was towed to Auckland, where a new rudder was fitted.
Sept. 3 ..	S.s. Aorere ..	Wellington ..	This vessel was crossing the Patea bar on the 22nd August, 1912, bound for Wellington, when she grounded and remained fast for half an hour. She was got off by means of her own machinery, and proceeded to Wellington. She was found to be leaking, and on arrival at Wellington was placed on the Patent Slip for examination. It was found that the transom-timber, the after-deck beam, one side of the stern-post at stern-tube, and the after part of the keel were cracked. A number of the planks in the after part of the hull and deck were started. A new transom-timber and new deck-beam, a new rudder-trunk, and one new plank under starboard quarter were fitted. The new gun-metal shoe under aperture was extended 2 ft. forward to strengthen the after end of the keel; two gun-metal plates were fitted, one on each side of stern-post at boss, and were riveted through, above, and below the boss; a number of butts in hull-planking were refastened, as was also the after part of deck-planking. The hull topsides from midship aft were recaulked, the after rails were repaired, and about 6 ft. of the hull at the after end was recoppered.
Sept. 19 ..	S.s. Dorrigo ..	Auckland ..	On the 15th September, 1912, this vessel met with very bad weather on a voyage from Auckland to Suva, which caused her to roll heavily. The circulating-pump of the main engines lost its water through the heavy rolling, and as the vessel righted again the pump became overcharged and the bottom was knocked out of it. Temporary repairs were effected which enabled the vessel to return under easy steam to Auckland, where a new brass bottom was made and fitted.
Sept. 28; Oct. 4	S.s. Squall ..	Auckland ..	This vessel was going from Gisborne to Auckland, *via* Tolaga Bay, on the 18th September, 1912, when she touched some submerged object off Spring Island. She was docked at Auckland for examination, and the following repairs carried out: One plate was taken out of bottom under starboard bow, straightened, replaced, and re-riveted; new ends were fitted on two of the floor-plates; three floor-plates and frames were taken out of port quarter, straightened, replaced, and re-riveted, and 8 ft. of the keel-plate aft was renewed; 7 ft. of plating in A strake on port quarter was renewed, and one new frame was fitted; four rudder-pintles were turned up and new bushes were fitted.
Oct. 4 ..	O.e.v. Fairburn	Auckland ..	While crossing the Bay of Plenty, on the 27th September, 1912, on a voyage from Wairoa, Hawke's Bay, to Auckland, this vessel sprung her rudder. On arrival at Auckland a new rudder and a new bottom gudgeon were fitted.

No. 19.—Return of Vessels surveyed for Seaworthiness, etc.—*continued.*

Date of Survey.	Name of Vessel.	Where surveyed:	Nature of Casualty, &c.
1912. Oct. 11 ..	O.e.v. Huanui ..	Auckland ..	On the 30th September, 1912, this vessel, when bound from Kaipara Harbour to Auckland, broke her propeller-shaft. The vessel continued her voyage under sail, and on arrival in Auckland a new propeller-shaft was fitted.
Oct. 14 ..	S.s. Pateena ..	Wellington ..	This vessel struck a rock off Jackson's Head on the 11th October, 1912. She continued her voyage to Nelson and Wellington. An examination of the vessel was made at Wellington, when she was found to have sustained no damage.
Oct. 14, 16	S.s. Gertie ..	Wellington ..	This vessel was coal-laden bound from Westport to Foxton, and on 30th September, 1912, she grounded at the North Spit at the entrance to the Manawatu River. After discharging part of her cargo she came off on the 3rd October, apparently undamaged. While proceeding up the river to Foxton she commenced to leak in the forehold to such an extent that the fore part of the vessel grounded in the river. Temporary repairs were effected, and the water was pumped out, enabling the vessel to proceed to Wellington. She was placed on the slip, where sheathing-plates were riveted over the damaged part of the hull. The rudder-shank was also straightened.
Oct. 17, 18	S.s. Awahou ..	Wellington ..	On the 17th October, 1912, this vessel was coming alongside the Wool Wharf in Wellington Harbour when she struck H.M.S. "Pioneer's" boat-davits. Two of the hull-plates well above the water-line were cut through. These were repaired by having bolted patches fitted over them.
Oct. 22 ..	S.s. Maori ..	Lyttelton ..	On the 22nd October, 1912, during the trip from Wellington to Lyttelton, this vessel lost a blade from the starboard propeller. On arrival at Lyttelton the vessel was docked and a new blade fitted.
Oct. 23 ..	S.s. Poherua ..	Lyttelton ..	On the 22nd October, 1912, when berthing at No. 7 wharf, Lyttelton, during a strong south-west gale, this vessel was blown out of her course up against the wharf. Two of the hull-plates on the starboard bow were fractured at the landings of the second and third strakes below the sheer-strake, 2 ft. from the stem. A sheathing-plate 3 ft. by 3 ft. by $\frac{3}{8}$ in. was fitted over the damaged portion.
Oct. 29 ..	S.s. Myra Fell ..	Auckland ..	During the latter part of October this vessel encountered a strong southerly gale between Newcastle and Auckland. During the gale she shipped a considerable amount of water which carried away the poop-ladder, damaged the ventilator, broke the spare propeller-lashings, and strained the poop-deck so badly that it commenced to leak. A new poop-ladder and new ventilator were fitted. The poop-deck was caulked where necessary.
Oct. 30 ..	S.s. Surrey ..	Wellington ..	On the 29th October, 1912, this vessel was lying at the Taranaki Street Wharf, Wellington. When the s.s. "Ngatoro" was going alongside the "Surrey" the fluke of her anchor pierced the hull-plating of the "Surrey." A sheathing-plate 30 in. by 18 in. by $\frac{3}{8}$ in. was riveted over the hole.
Nov. 4, 5 ..	S.s. Putiki ..	Nelson ..	About two miles south of Rocks Point, on a trip from Wanganui to Westport, on the 2nd November, 1912, this vessel's rudder-stock broke. She put into Nelson, where a new end of a larger diameter than the old one was welded on.
Nov. 9 ..	S.s. Moana ..	Wellington ..	A crack developed in the bend of the main steam-pipe at the neck of pope-joint on the 2nd November, 1912, on the voyage from San Francisco to Wellington. Temporary repairs were effected at sea, which kept the pipe in position until the vessel made Wellington. A new pope-joint was fitted, and the pipe annealed and tested by hydraulic pressure to double the working-pressure before being placed on board.
Nov. 14, 15	S.s. Putiki ..	Wellington ..	This vessel was lying at the Westport Wharf, on the 9th November, 1912, when the s.s. "Waipori" collided with her, denting the starboard bow-plating and loosening a number of rivets. The defective rivets were renewed and one gusset-plate was straightened.
Oct. 21; Nov. 7, 14	S.s. Waltraute ..	Port Chalmers ..	On the 28th May, 1912, when loading at New York for New Zealand, this vessel's bottom touched the ground. She was docked at Port Chalmers, when the following repairs were effected: Eleven of the floor-plates on the starboard side were renewed, seven of the floor-plates were straightened in position, and eleven hull-plates were cut out, straightened, and re-riveted in position; three suction-pipes of the deck-pumps were renewed. After the above repairs were completed the ballast-tanks were tested by water-pressure.
Nov. 18, 20	S.s. Kittawa ..	Wellington ..	This vessel was proceeding from Lyttelton to Greymouth, on the 17th November, 1912, when the circulating-pump rod and foot-valve broke, and the pump-chamber cracked. The broken parts were taken out of the chamber, a blank flange was put over the stuffing-box on the cover, and the ballast donkey-pump was used for circulating purposes. The vessel then put into Wellington for repairs. A new chamber, foot-valve, and rod were made and fitted.

No. 19.—Return of Vessels surveyed for Seaworthiness, etc.—*continued*.

Date of Survey.	Name of Vessel.	Where surveyed.	Nature of Casualty, &c.
1912.			
Nov. 8, 11, 13	S.s. Rosamond ..	Auckland ..	On the 7th November, 1912, this vessel grounded on a sand-bank near Limestone Island when leaving Auckland. On arrival at Auckland the vessel was docked for survey and the following repairs effected: Several of the floor-plates and several new reverse bars were fitted in the bottom under the after hold; the stokehold bulkhead was renewed right across the bottom about 3 ft. up, and the plates forming the recess for the donkey-boiler were re-riveted along the bottom; one new butt strap was fitted on top of keelson, and also one on the side; four rivets in the bottom of the hull were renewed, and the cement in the bottom was renewed where necessary.
Nov. 19 ..	S.s. Weka ..	Napier ..	This vessel was making a trip from Napier to East Coast when on the 23rd October, 1912, in thick weather, she ran aground on the sandy beach near Makaramau. The vessel was refloated on the 10th November, and returned to Napier. She was placed on the slip, when six rivets were renewed in the port side of bottom and a small sheathing-patch was riveted on seam between C and D strakes. On the starboard side 14 ft. of new angle-iron was fitted to the bottom of port belting, and 13 ft. of new belting and 12 ft. of new rail were fitted on port side. Bottom gudgeon of rudder was relined with magnolia metal.
Nov. 21 ..	O.e.v. May Howard	Auckland ..	The rudder-blade of this vessel was carried away on the 11th November, 1912, during heavy weather, while the vessel was on a voyage from Tauranga to Auckland. A jury rudder was fitted, which enabled her to reach Port Charles. She was afterwards towed by the s.s. "Doto" to Auckland, when a new rudder was bolted to the stock and part of the rudder-trunk was renewed.
Nov. 22 ..	S.s. Hina ..	Nelson.. ..	On the 20th November, 1912, this vessel was crossing the bar of the Aorere River bound from Collingwood to Nelson. The propeller struck the bottom, the blow shearing the feather on the propeller-shaft. On arrival in Nelson a spare propeller-shaft and new propeller were fitted.
Nov. 27 ..	S.s. Pateena ..	Wellington ..	This vessel was proceeding from Picton to Nelson, on the 25th November, 1912, when she touched Blamine Island, Queen Charlotte Sound. She completed the trip to Nelson and back to Wellington, where a survey of the hull was made internally. A diver was engaged to examine the outside of the hull. She was found to have received no damage.
Sept. 27; Oct. 4; Nov. 8, 28	Wanganui (barquentine)	Wellington ..	This vessel was on a voyage from Wanganui to Sydney on the 20th September, 1912, and when sixty-five miles west by south from Wanganui she was dismasted. She was taken in tow by the s.s. "Arapawa" on the 21st September and towed into Wellington and refitted as follows: A kauri fore lower mast, 16½ in. diameter, out of the "Pelotas" was fitted; new main and mizzen lower mast, 18 in. diameter, new kauri fore, main, and mizzen topmasts, fore and main top-gallant and royal masts were fitted; a new topsail, topgallant and royal yards, and a kauri bowsprit and jib-boom were also fitted; all standing rigging, stays, and guys were refitted, and a complete new set of sails with all running-gear complete was provided.
Dec. 2 ..	S.s. Surrey ..	Wellington ..	When lying alongside the Glasgow Wharf, Wellington, on the 29th November, 1912, a crack was discovered in the main stop-valve chest of the centre after boiler. A new stop-valve chest was made, fitted, and tested to 360 lb. hydraulic pressure.
Dec. 3 ..	S.s. Waiwera ..	Dunedin ..	On the 3rd December, 1912, when this vessel was lying at the wharf, Port Chalmers, a fire was discovered in the port side of cross-bunker. After the removal of the coal it was found that the lead suction-pipes for the ballast-tanks, which pass through the bulkhead, were melted. New pipes were fitted, and a patch riveted on the bulkhead where the pipes were jointed.
Dec. 11, 12..	S.s. Waitangi ..	Auckland ..	On the 7th December, 1912, this vessel was towing a raft of logs between Tairua and Auckland when the port tail-shaft broke off at the after end of brass liner. She proceeded to Auckland with her starboard engine. On arrival she was docked and a new propeller-shaft fitted. The outer stern-bush was relined with lignum-vitæ.
Dec. 16 ..	S.s. Hina ..	Nelson ..	This vessel was making a voyage from Waitapu to Nelson on the 12th December, 1912, when a web of crank-shaft broke. On arrival in Nelson repairs were made.
Dec. 19 ..	S.s. John ..	Wellington ..	During the voyage of this vessel from Gisborne to Wellington, on the 18th December, 1912, she ran ashore off the mouth of the Tukituki River. She remained fast from 2.30 a.m. to 10 a.m., when she was towed off by the s.s. "Tangaroa," assisted by her own engines. The vessel resumed her trip to Wellington. On arrival a survey was made, when she was found to have sustained no material damage.

No. 19.—Return of Vessels surveyed for Seaworthiness, etc.—*continued.*

Date of Survey.	Name of Vessel.	Where surveyed.	Nature of Casualty, &c.
1913. Jan. 15, 17..	Triton (barque) ..	Dunedin ..	On the 21st October, 1912, this vessel bumped on the South-east Spit, Malden Island, through the buoy-rope carrying away. The vessel came off the same day unassisted. On arrival at Port Chalmers the vessel was docked, when the following repairs were found necessary: Sixty-eight rivets were renewed in the keel and rudder-post, a new bottom pintle was made for rudder, the centre pintle was re-riveted, and the bearings for the steering-gear screw were renewed.
Jan. 15, 16, 18	S.s. Wootton ..	Lyttelton ..	When this vessel was off Godley Head on the 14th January, 1913, between Kaiapoi and Lyttelton, the boiler commenced to leak. On examination it was found that the crown of combustion-chamber had bulged $\frac{5}{16}$ in. between the girders, causing the stays to leak. On arrival at Lyttelton repairs were made by rejointing the nuts on all combustion-chamber stays. The boiler was tested to 160 lb. hydraulic pressure after repairs were completed.
Jan. 24 ..	S.s. Opawa ..	Wellington ..	This vessel was on a trip from Blenheim to Wellington on the 12th January, 1913, when, owing to shortness of water in the main boiler, the combustion-chamber crown came down ½ in. in four spaces between the girders. On arrival at Wellington the bulged portion of the crown was put back in position, six new stays were fitted in girders, the two top rows of tubes were expanded and the landings were caulked.
Jan. 23, 26..	S.s. Turakina ..	Wellington ..	When the steam was turned on to the main engines of this vessel on the 23rd January, 1913, at the wharf, Wellington, the main stop-valve chest was found to be fractured. A new stop-valve chest was made, tested by hydraulic pressure to double the steam-pressure, and afterwards fitted in position.
Jan. 27 ..	S.s. Manaroa ..	Wellington ..	On the 26th January, 1913, while this vessel was lying at Wellington wharf, a fire broke out in the coal-bunker on the port side. After the fire was extinguished an examination was made and the damage was found to be very slight. A little of the sheathing on the bulkhead had to be renewed.
Jan. 29 ..	S.s. Mullogh ..	Lyttelton ..	When lying alongside the Gladstone Pier, Lyttelton, on the 21st January, 1913, the vessel commenced to leak. Twelve rivets were renewed in the hull on port side, and the slack bolts in the belting were rejointed.
Feb. 4, 6 ..	S.s. Turakina ..	Wellington ..	During the voyage of this vessel from London to New Zealand a heavy head sea was met with, and the port anchor, not having been hauled tight in the hawse-pipe, worked about during the heavy weather. The hawse-pipe, which was getting thin with wear, was cracked by the movement of the anchor. The old hawse-pipe was cut out, and a new one weighing 3 tons 8 cwt. was made and fitted.
Feb. 10 ..	S.s. Karamu ..	Greymouth ..	This vessel was arriving at Greymouth from Gisborne on the 9th February, 1913, when she went ashore, the steering-wheel having been put over the wrong way. The forepeak tank and No. 1 ballast-tank were pumped out, and on the engines being put astern she came off after being aground forty-five minutes. On examination three dents were found in the bottom plating and the cement was broken in nine spaces.
Feb. 22 ..	S.s. Morayshire ..	Wellington ..	On the 21st February, 1913, when this vessel was lying at the wharf at Wellington, a crack was discovered in the main steam-pipe at one of the flanges. A new piece 9 in. long and a new flange were fitted to the pipe, and it was afterwards tested by hydraulic pressure to double the working-pressure before being placed on board.
Feb. 26 ..	S.s. Waverley ..	Nelson.. ..	This vessel was steaming between Wellington and Nelson, on the 26th February, 1913, when she took the ground at the French Pass. She remained aground for five hours, and floated off as the tide rose. On arrival at Nelson an examination was made, but no damage was found.
Feb. 26; Mar. 4	S.s. Matatua ..	Timaru ..	On the 25th February, 1913, when at the Timaru Wharf, a fire broke out in the lower 'tween-decks of No. 5 hold of this vessel. After the fire was extinguished an examination was made and it was then found that several deck-plates were buckled, the sparring burnt, and the insulation damaged by water. The sparring on the starboard side of the 'tween-decks was renewed.
Mar. 1, 4 ..	S.s. Koonya ..	Wellington ..	On the 28th February, 1913, this vessel was being moved in Wellington Harbour from No. 16 wharf to the Railway Wharf. On nearing the Railway Wharf the vessel took a shear and collided with the wharf. The impact stove in the shear-strake plating on the port bow for a length of 8 ft. and broke three frames. The damaged plate and frames were cut out, a new plate 10 ft. by 4 ft. by ½ in. was fitted, and three new frames and two new reverse bars were fitted.

No. 19.—Return of Vessels surveyed for Seaworthiness, etc.—*continued.*

Date of Survey.	Name of Vessel.	Where surveyed.	Nature of Casualty, &c.
1913.			
Mar. 5 ..	S.s. Waikana ..	Dunedin ..	This vessel was making a trip from Dunedin to the Kaik on the 1st March, 1913, when she grounded. An hour later, as the tide rose, with the use of her own engines the vessel came off. On examination it was found that the rudder-stock was twisted half a turn. The rudder was unshipped and the stock was straightened.
Mar. 8 ..	S.s. Waimea ..	Wellington ..	On the 8th March, 1913, about 3.40 a.m., this vessel during foggy weather ran ashore in Ohariu Bay on the voyage from Wanganui to Wellington. She remained ashore until 7.45 a.m., and on arrival in Wellington a survey was made. Several dents were discovered in hull-plating on the bottom of vessel on the starboard and port sides. The vessel was placed on the slip, and about forty rivets were renewed.
Mar. 14, 15, 17, 18	S.s. Kowhai ..	Dunedin ..	This vessel was steaming from Dunedin to Oamaru on the 12th March, 1913. When near Taiaroa Heads she was driven on the Mole by a heavy north-east gale, and remained fast until next day. The vessel was towed off by a tug and a dredge, and was taken to Port Chalmers, where she was docked. The following repairs were made: A fractured plate 17 ft. by 4 ft. 6 in. by $\frac{5}{8}$ in. on the starboard side in the way of stokehold was cut out and renewed; one floor-plate was straightened; 10 ft. of bulb-angle framing and 12 ft. of stringer angles were renewed; a number of rivets were renewed in the forward part of the stern-frame; 110 rivets were renewed in the bottom of the hull under No. 1 tank, and sixty rivets were renewed in the margin angles forward; all the broken cement was renewed; a new electric engine and dynamo were fitted.
Mar. 16, 17, 18, 19	S.s. Tokomaru ..	Dunedin ..	On the voyage from St. John's, Canada, to Port Chalmers, heavy weather was met with, during which the stern-post was fractured. On arrival at Port Chalmers the vessel was docked and the following repairs effected: Two straps, 6 ft. 9 in. by 9 in. by 3 in., were riveted over the cracked portions of the stern-post between the third and fourth rudder-pintles; the rudder-pintles were turned up and the gudgeons were bushed; the propeller-shaft was drawn, and the stern-bush relined with lignum-vitæ; the stokehold-casing was also repaired where necessary.

No. 20.—Return showing the Revenue from the Inspection of Machinery Department (including the Examination of Marine Engineers, Land-engine Drivers, and Electric-tram Drivers, and the amount earned by the Survey of Steamers and Sailing-ships), also the Ordinary Expenditure of the Inspection of Machinery Department (including the examination of Marine Engineers, Land-engine Drivers, and Electric-tram Drivers, and the Survey of Steamers and Sailing-ships), during the Financial Year ended the 31st March, 1913.

Receipts.	£	s.	d.
Inspection of boilers and machinery (less refunds)	9,725	7	6
Examination of land engine-drivers (less refunds)	697	2	6
Examination of electric-tram drivers (less refunds)	102	0	0
Survey of steamers (including auxiliary-powered vessels)	2,748	0	0
Survey of sailing-ships	356	10	0
Survey of vessels for seaworthiness ..	145	0	0
Examination of marine engineers ..	298	10	0
Examination of plans of vessels.. ..	9	10	0
	£14,082	0	0

Expenditure.	£	s.	d.
Salaries (less refunds)	9,788	12	7
Advertising, books, &c.	15	8	6
Office furniture, &c.	0	12	6
Collection of inspection-fees	150	0	0
Office equipment and requisites ..	44	2	9
Postage and telegrams	267	9	10
Printing and Stationery	65	18	9
Rent, cleaning offices, fuel, and light ..	233	6	6
Telephones (less refund)	81	4	6
Travelling-expenses (less refund) ..	2,864	9	9
Contingencies	34	13	0
	£13,545	18	8

RETURN No. 21.—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, J., and Co.	Auckland	Bacon-factory	30	8 and 14	First class	Size of cylinders amended.
Amburys Limited	Newton	Dairy purposes	75	13	Second class	Size of cylinders amended; late Mephan Ferguson Steel Pipe Company, Avondale.
Armstrong Gold-dredging Company	Coromandel	Gold-dredge	20	8 and 13	First class	Additional.
Auckland Brick and Pottery Company	Avondale	Brickworks	72	20	,,	Size of cylinders amended.
Auckland City Council	Auckland	Destructor	115	Nil	Second class	Engine not now connected.
,,	,,	Electric light	303½	Two 17½, 24½, and 37½	First class	Additional.
,,	,,	,,	303½	,,	,,	,,
,,	,,	,,	303½	,,	,,	,,
,,	,,	,,	303½	,,	,,	,,
,,	Westfield	Abattoirs	26	6 and 10	Second class	Size of cylinders amended; late R. and W. Hellaby, Auckland.
Auckland Electric Tramway Company	Auckland	Generators	123	17 and 34, 18¾, 27, and 38½	First class	Size of cylinders amended.
,, ,,	,,	,,	123	Ditto	,,	,, ,,
Auckland Farmers' Freezing Company	Southdown	Freezing	84	8 and 10	,,	,, ,,
,, ,,	Westfield	,,	84	,,	,,	,, ,,
,, ,,	,,	,,	84	,,	,,	,, ,,
,, ,,	Auckland	,,	76	19 and 28	,,	,, ,,
Auckland General Hospital	,,	Steaming	51	Nil	Second class	Additional.
Auckland Harbour Board	,,	Dredging	65	Two 5, 14 and 24, 6 and 14	First class	Size of cylinders amended.
,,	,,	Hoisting on punt	34	Two 10	Second class	Additional.
Auckland Meat Company	Otahuhu	Meat-works	51	10	,,	,,
Bagnall Bros.	Freeman's Bay	Box-factory	64	12	,,	Size of cylinders amended.
Bodle Bros.	Papakura	Stone-crushing	5½	5¼ and 8¾	Locomotive and traction	Additional.
Brett Publishing Company	Auckland	Printing	35	13 and 14½	First class	Size of cylinders amended.
Browne, S. G.	Penman's Bush	Sawmill	8	7 and 11½	Second class	,, ,,
,,	Opuawhanga	Hauling	8	6½ and 10	Locomotive and traction	Late Whangarei Borough Council, Whangarei.
Colonial Soap Company	Parnell	Soap-works	15	14	Second class	Late F. Fitt and Co., Parnell.
Colonial Sugar-refining Company	Chelsea	Sugar-refining	190	Five 16, three 14, two 22, two 24	First class	Size of cylinders amended.
,,	,,	,,	168	Ditto	,,	,, ,,
,,	,,	,,	168	,,	,,	,, ,,
Cook, H. F.	Whangamumu	Boiling-down	83	Two 7½, one 6½	Second class	,, ,,
Dargaville Timber Company	Dargaville	Sawmill	25	12	,,	Size of cylinders amended; late Massey Bros., Auckland.
Faithful, McConnell, and Co.	Neavesville	Log-hauling	20	Two 8½	,,	Size of cylinders amended.
Farrow, R. E.	Mangaiti	Flax-mill	23	10	,,	Additional.
Ferguson, J. H.	Bombay	Threshing	6	8	Locomotive and traction	,,
,,	Pukekohe	General work	5	8	,,	Late Comrie and Ferguson, Pukekohe.
Gammans Limited	Omanawa	Sawmill	70	18	First class	Additional.
,,	Tauranga	Hauling	13	Two 7½	Locomotive and traction	,,
Gibbons, R. P.	The Bush	Log-hauling	11	Two 6	,,	Late G. E. King, Dargaville.

Goldie, D., and Sons	Tutukaka	Sawmill	40	14	Second class	Size of cylinders amended; late Cashmore Bros., Katikati.
Great Northern Brewery Company (Limited)	Kyber Pass	Brewery	41½	10	,,	Additional.
Greig and Bates	Manawake	Sawmill	2	010	,,	Late Mikkleson and Co., Matata.
Grey Lynn Borough Council	Auckland	Road-roller	4	4½ and 6⅞	Locomotive and traction	Additional.
Hemming and Fausett	Pukekohe district	General work	6	7	,,	Late Comrie and Fausett, Pukekohe.
Henwood, Thomas	Mangere	,,	7	8½	,,	Late H. Short, Onehunga.
Hine, A.	Maketu district	Chaffcutting	4	4⅜ and 6¾	,,	Late B. G. Pinker, Maketu.
Honey, Gordon G.	Waiuku	Farm-work	7	6 and 9	,,	Additional.
Karaka Gold-mining Company	Karaka Creek	Air-compressing	65	17 and 10	First class	,,
,,	,,	,,	49	,,	,,	,,
,,	,,	,,	49	,,	,,	,,
Kauri Timber Company'	Koutu	Sawmill	50	14½	,,	Size of cylinders amended.
,,	Waipuna	,,	50	16½, 17½, four 10, four 5, five 7	,,	Additional.
,,	,,	,,	50	Ditto	,,	,,
,,	,,	,,	50	,,	,,	,,
,,	,,	,,	51	,,	,,	,,
King, H.	Pukete Bush	Log-hauling	8	6½ and 10	Locomotive and traction	Late Slater and King, Kauri.
Kiripaki Sawmill Company	Ngunguru	Sawmill	68	Two 13	First class	Late Colonel W. D. Colgate and Co., Ngunguru.
Leyland and O'Brien	Auckland	,,	36	12½	Second class	Size of cylinders amended.
Massey Bros.	,,	Air-compressing	25	11½	,,	,, ,,
Morningside Quarries, Limited	Morningside Quarry	Stone-crushing	67	16½ and 13	First class	,, ,,
McLennan, M.	Kaiaua	Contracting	8	Two 6	Locomotive and traction	Additional.
Ness Vale Land Company	Ness Valley	Sawmill	15·9	9½	Second class	Late J. Black, Auckland.
Newmarket Borough Council	Newmarket	Road-roller	5	5¼ and 9	Locomotive and traction	Additional.
New Zealand Government (Lands Department)	Mangaroa	Priestman dredge	10½	Two 9	Exempt	,,
,, ,,	Matata	,,	10½	,,	,,	,,
New Zealand Government (Mental Hospitals Department)	Avondale	Laundry	30	7 and 9	,,	Size of cylinders amended.
New Zealand Government (Mental Hospitals Department)	,,	Laundry-work	30	,,	,,	,,
New Zealand Paper-mills	Riverhead	Paper-mills	52	17 and 34	First class	Size of cylinders amended; late Waihi Gold-mining Company, Waihi.
,,	,,	,,	76	11½ and 23	,,	Size of cylinders amended.
,,	,,	,,	42	,,	,,	,, ,,
,,	,,	,,	42	,,	,,	,, ,,
Nicoll, George	New Lynn	Traction	4	4⅝ and 7	Locomotive and traction	Additional.
O'Brien, J. J.	Auckland	Sawmill	28	Two 12	First class	Late Kauri Timber Company, Waimamaku.
Onehunga Woollen Mills	Te Papa	Woollen-mills	50	4	Second class	Size of cylinders amended.
Parker, Lamb, and Co.	Auckland	Idle	20	Nil	,,	Engine not now connected.
,, ,,	Mechanics Bay	Sawmill	40	18	First class	Late Macklow Bros., Auckland.
,, ,,	Mamaku	,,	35	16	,,	Size of cylinders amended.
Raglan Dairy Company	Raglan	Dairy-work	16	Nil	Second class	Engine not now connected; late Beaney Bros., Arch Hill.
Rich and Jeffreys	Matata	Suction dredge	35	18 and 32	First class	Size of cylinders amended; late Waitemata Sawmill Company, Auckland.
,,	Rangataiki Swamp	Pumping, &c.	50	18½ and 26	,,	Size of cylinders amended.
Talisman Consolidated Gold-mining Company	Karangahake	Gold-mining	95	18½ and 34	,,	,,
,, ,,	,,	,,	95	,,	,,	,,
Tauranga Sawmilling Company	Oropi	Sawmill	28	17	,,	,,
,,	,,	,,	27	17	,,	,,

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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.*						
Thompson and Hills	Auckland	Jam-factory	46	6	Second class	Additional.
Waihi Extended Gold-mining Company	Waihi	Pumping and winding	62	Two 8, two 10	Second class and winding	Size of cylinders amended.
Waihi Gold-mining Company	No. 2 Shaft, Waihi	Pumping, winding, and air-compressing	70	Two 18, two 8, two 6, one 12, one 8	First class and winding	,, ,,
,,	,,	Ditto	70	Ditto	,, ,,	,, ,,
,,	No. 5 Shaft, Waihi	,,	64	60 and 110, 35 and and 70, 15 and 30, two 8, two 12, two 18	,, ,,	,, ,,
,,	,,	,,	64	Ditto	,, ,,	,, ,,
,,	,,	,,	88	,,	,, ,,	,, ,,
,,	,,	,,	88	,,	,, ,,	,, ,,
,,	,,	,,	88	,,	,, ,,	,, ,,
,,	,,	,,	88	,,	,, ,,	,, ,,
,,	,,	,,	145	,,	,, ,,	,, ,,
,,	,,	,,	145	,,	,, ,,	,, ,,
Waihi–Paeroa Gold-extraction Company	Paeroa	Gold-saving	14	Two 8½	Second class	Additional.
,, ,,	,,	,,	83	11 and 22, 21 and 40, three 6	First class	Size of cylinders amended.
,, ,,	,,	,,	83	Ditto	,,	,, ,,
,, ,,	,,	,,	83	,,	,,	,, ,,
,, ,,	,,	,,	83	,,	,,	,, ,,
Waihi Standard Gold-mining Company	Waihi	Winding	14	Two 8¾	Second class and winding	Late Vanguard Gold-mining Company, Thames.
Walker, G.	Tuakau	Flax-mill	24	10	Second class	Late E. C. Frost, Tuakau.
Waller and Sons	Pukekohe	Chaffcutting	6	8	Locomotive and traction	Additional.
Whangape Timber Company (Limited)	Whangape	Sawmill	25	14¼	First class	Late Mitchelson Timber Company, Whangape.
Whangarei Borough Council	Whangarei	Road-roller	5	Compound 5 and 8½	Locomotive and traction	Additional.
Whangarei Coal-mine	,,	Mining purposes	25	Two 9	Second class	,,
White Island Sulphur Company (Limited)	White Island	Sulphur-works	22	Nil	,,	,,
Wilson and Horton	Auckland	Printing-works	53	Compound 9 and 13, one 15	First class	Size of cylinders amended.
AUCKLAND SOUTH DISTRICT.						
Auckland Rimu Timber Company	Ngongotaha	Sawmill	68	16 and 25	First class	Additional.
Bartholomew Land and Timber Company	Ngatira	Hauling	19½	11	Locomotive and traction	Size of cylinders amended.
Cambridge Co-operative Dairy Company	Hautapu	Butter-factory	35	7 and 9	Second class	Additional.
Carlson, A.	Owhango	Sawmill	23	13	,,	,,
Ellis and Burnand	Mangapeehi	,,	50	Two 14	First class	Size of cylinders amended.
,, ,,	,,	,,	65	,,	,,	,, ,,
,, ,,	Manunui	Log-hauling	17	8	Second class	Additional.
,, ,,	,,	Hauling	12	Two 7	Locomotive and traction	Size of cylinders amended.
,, ,,	,,	Sawmill	59	14½ and 18	First class	,, ,,
,, ,,	,,	,,	59	,,	,,	,, ,,
,, ,,	,,	,,	51	,,	,,	,, ,,

"	Ongarue	"	75	18	"	Additional.
"	"	"	75	18	"	"
"	Waikato	Hauling	12	Two 7½	Locomotive and traction	"
Fullerton, S.	Te Kowhai district	Contracting	6	7	"	"
Gardner, G., and Sons	Oio	Sawmill	77	Two 14⅛	First class	Size of cylinders amended; late Mander and Bradley, Puhipuhi.
Hansen, F. C.	Waitoa	"	40	14½	"	Late Hansen and Co., Waitoa.
Hayter and Gunn	Hamilton	"	14	Two 9⅛	Second class	Additional.
Huntly Brick and Fireclay Company	Huntly	Brickworks	36	10	"	Late Coates Limited, Huntly.
" "	"	"	26	12	"	Additional.
Innes and Co.	Hamilton	Cordial-factory	16	9½	"	"
Knight, B. L.	Raurimu	Hauling	12·6	Two 7	Locomotive and traction	"
Lee and McKenzie	Mamaku	"	14	Two 9	"	"
Maisey Bros.	Gordon district	Chaffcutting	4	7	"	Size of cylinder amended.
Melville, R. J.	Cambridge district	Threshing	5	7½	"	Late C. Jarrett, Cambridge
Meredith and Co.	Mangaroa	Sawmill	12	7⅛ and 11	Second class	Additional.
Mountain Rimu Timber Company	Mamaku	Log-hauling	15·3	Two 9	"	"
New Zealand Dairy Association	Ngaruawahia	Dairy factory	34	16¼	First class	Size of cylinder amended.
" "	"	"	17·3	Two 5, three 4	Second class	Size of cylinders amended.
New Zealand Government (Mental Hospitals Department)	Tokanui	Steaming	38		Exempt	Additional.
Ditto	"	"	38		"	"
O'Connor and Bullions	Taumarunui	Log-hauling	15	Two 8½	Second class	"
O'Donoghue, P. J.	Kiwitahi	Threshing	6	5 and 9	Locomotive and traction	"
Ohura Co-operative Dairy Company	Nihoniho	Dairy factory	12	8½*	Second class	"
" "	"	"	6	8½*	"	"
Parker-Lamb Timber Company	Mamaku	Sawmill	50	16	First class	Late Rotorua Rimu Timber Company, Mamaku.
Patate Timber Company	Manunui	Hauling	8	Two 8½	Locomotive and traction	Size of cylinders amended; late G. Gardner and Sons, Manunui.
"	"	Log-hauling	17	"	Second class	Late G. Gardner and Sons, Manunui.
"	"	Sawmill	73	17¼	First class	" "
Prouse Lumber (Limited)	Owhango	"	50	12	Second class	Additional.
" "	"	"	37	12	"	"
" "	"	"	40	12	"	"
" "	"	"	14	12⅛	"	"
Pukuweka Sawmills (Limited)	Matapuna	"	27	13	"	"
"	"	"	25	14	"	Size of cylinder amended; late Smith and Winger, Taumarunui.
Raglan County Council	Ngaruawahia district	Contracting	7½	5¾ and 9½	Locomotive and traction	Additional.
Roe, A. W.	Mamaku	Hauling	23	Two 9	"	Late New Zealand Railways.
Rotorua Rimu Timber Company	"	Sawmill	23	"	Second class	Additional.
Steele, W.	"	Hauling	26	"	Locomotive and traction	"
"	"	Sawmill	43	14½	First class	Size of cylinder amended: late Steele Bros., Mamaku.
"	Maraeroa	"	32	13 and 19	"	Size of cylinders amended.
Stevens and McPherson	Manunui	"	45	13	Second class	Additional.
Taupiri Coal Company	Huntly	Pumping and air-compressing	14	Two 10	"	Size of cylinders amended.
"	"	Winding	30	Two 18	First class and winding	" "
"	"	"	30	"	" "	" "
"	"	"	42	Two 8 and two 9	Winding	" "
"	"	"	77	"	"	" "

* These boilers are driving one shaft.

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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 SOUTH DISTRICT—*continued.*				
Taupiri Coal Company	Huntly	Winding	35	20	First class and winding	Size of cylinders amended.
,,	,,	Mining	72	Two 15	First class	,, ,,
,,	,,	Pumping	72	,,	,,	,, ,,
,,	,,	,,	75	9¾ and 18	,,	,, ,,
,,	,,	Mining	72	Two 18, 14, 16, 24	,,	Additional.
Taupo Totara Timber Company	Mokai	Sawmill	58	12	Second class	Size of cylinder amended.
,, ,,	,,	,,	60	14¼	First class	,, ,,
,, ,,	,,	Log-hauling	18	Two 10 and two 8¼	,,	Size of cylinders amended.
Vincent, C. J.	Huntly district	General	12½	11	Locomotive and traction	Additional.
Watkins Bros.	Kaitieke	Sawmill	38	12	Second class	,,
,,	,,	Log-hauling	15	Two 9	,,	,,
		CANTERBURY DISTRICT.				
Andersons Limited	Christchurch	Engineers' tools	20	9 and 15	First class	Size of cylinders amended.
Barry's Bay Dairy Company	Barry's Bay	Dairy factory	17	6	Second class	Additional.
Blakemore Bros.	Springston	General	8	9	Locomotive and traction	Late J. T. Blakemore, Springston.
Bowman, Mrs. E. A.	Cooper's Creek	,,	8	9½	,,	Late R. Bowman, West Oxford.
Boyd, Thomas, sen.	Kaikoura	Idle	8	9½	,,	Late F. Lyford, Kaikoura.
Brown, D. H., and Son	Christchurch	Flour-mill	30	8 and 12⅞	First class	Size of cylinders amended.
Brown, Mrs.	,,	Laundry	20	8	Second class	,, ,,
Burt, E. A.	Swannanoa district	Threshing only	8	9	Locomotive and traction	Additional.
Bush, H. H.	Christchurch	General	5	5½ and 8	,,	,,
Canterbury Bye-Products Company	Sockburn	Manure-works	44	9 and 14	First class	Size of cylinders amended.
Canterbury Frozen Meat Company	Belfast	Freezing	30	10 and 17	,,	,, ,,
,, ,,	,,	,,	40	,,	,,	,, ,,
,, ,,	,,	,,	40	,,	,,	,, ,,
,, ,,	,,	,,	36	9, 14½, and 25	,,	,, ,,
,, ,,	,,	,,	36	,,	,,	,, ,,
,, ,,	,,	,,	70	10 and 17	,,	,, ,,
,, ,,	,,	Shunting	20	Two 9	Locomotive and traction	,, ,,
Central Dairy Company	Addington	Dairy factory	16	7 and 11	Second class	,, ,,
Chapman, H. J.	Kaiapoi district	General	6	7¼	Locomotive and traction	Additional.
Christchurch Gas Company	Christchurch	Hauling	7	Two 7	,,	Size of cylinders amended.
Christchurch Hospital Board	,,	Heating	50	11 and 5	Second class	,, ,,
Christchurch Meat Company	Islington	Freezing	40	16 and 30, 10 and 18, 15 and 27	First class	,, ,,
,,	,,	,,	40	Ditto	,,	,, ,,
Christchurch Tramway Board	Christchurch	Locomotive	8	7 and 7	Locomotive and traction	,, ,,
Clark Estate, The	Flaxton district	General	8	8¾	,,	Late H. J. Clark, Flaxton.
Dearsley and Taylor	Christchurch	Sawmill	30	10½	Second class	Size of cylinders amended.
Duncan, P. and D.	,,	Steam-hammer	30	Nil	,,	Engine not now connected.
Elmers, John	Hawarden district	General	8	6½ and 10	Locomotive and traction	Late Thornley and Elmers, Hawarden.
Gibbs, H.	Halswell	,,	8	,,	,,	Late Frederick Mann, Russell's Flat.
Goodman, John	Christchurch	,,	4	3 and 5	,,	Additional

Hadler, B.	Amberley	„	7	7⅝	„		Late H. M. Hadler, Amberley.
Halswell Quarry Company	Halswell	Hauling	4	4½ and 6	„		Late McLaren and Co., Christchurch.
Hartnell, Leonard	Leeston district	General	8	8½	„		Additional.
Howes, V.	Albury	„	9	9	„		„
Humm Bros.	Waddington	„	4	7	„		Late W. Humm, Waddington.
Jones, T. B.	Hororata	„	8	9¼	„		Late Patterson and Jones, Hororata.
Judd, George	Waddington district	Threshing only	6	7⅝	„		Additional.
Kaikoura Co-operative Dairy Company	Kaikoura	Dairy factory	17	6	Second class		„
Lill, F.	Dunsandel	General	8	9	Locomotive and traction		Late Pierson and Taylor, Brookside.
Lyttelton Harbour Board	Lyttelton	Pumping	15	Two 13⅛, one 6½	First class		Size of cylinders amended.
„	„	„	15	„	„	„	„
„	„	„	15	„	„	„	„
Lyttelton Times Company	Christchurch	Printing	15	9 and 14	„	„	„
„	„	„	15	„	„	„	„
McWilliam, J.	Lake Coleridge	Hoisting and pile-driving	9	Two 8½	Second class		Additional.
Mathews, J. J. and R.	Rangiora district	General	8	9	Locomotive and traction		Late Mrs. B. Mathews, Rangiora.
Maw, R. A. and G.	Southbridge district	„	9	6½ and 10	„		Late W. Walker, Killinchy.
Mills, John	Coalgate	„	8	6½ and 10½	„		Late J. C. Andrews, Waikuku.
„	„	„	8	6½ and 10	„		Size of cylinders amended.
Morris, F.	Waikuku	Hauling	8	„	„		Late John Mills, Waikuku.
New Zealand Glue Company	Woolston	Glue-manufacturing	35	Nil	Second class		Engine not now connected.
New Zealand Government (Mental Hospitals Department)	Sunnyside	Heating	30	Two 5, two 9	Exempt		Size of cylinders amended.
Ditto	„	Heating, &c.	30	Two 9	„	„	„
New Zealand Government (Public Works Department)	Bealey	Hoisting	18	Two 8¼	„		Late Jamieson Bros., Christchurch.
Quigley, F.	Doyleston	General	8	6⅜ and 11	Locomotive and traction		Size of cylinders amended.
Rossiter, John	Ashley district	„	8	6¾ and 11	„	„	„
Shields, T. A.	Woodgrove district	Threshing only	8	6½ and 10½	„		Late R. Reid, Bennetts.
Smith and Smith	Christchurch	Electric light and power	53	Two 11 and 21	First class		Size of cylinders amended.
„	„	Woodworking	111	12 and 21	„		Additional.
Smith, J.	Hillsborough	Brickworks	20	11⅞	Second class		Late Wallace and Smith, Woolston.
Spreydon Borough Council	Spreydon	Road-roller	6	8	Locomotive and traction		Late J. Burns, Lyttelton.
Strachan, J. W.	Kaiapoi	General	6	6 and 10	„		Size of cylinders amended.
Thornley, S.	Waikari district	„	8	6¾ and 11½	„		Size of cylinders amended. Late Halswell Quarry Company, Halswell.
Todd Bros.	Coutt's Island	„	8	8¾	„		Late W. Moody, Woodend.
„	„	Threshing	9·16	6¼ and 10½	„		Additional.
Union Steamship Company (Limited)	Lyttelton	Hoisting	21	Two 5½, two 6, two 5½	Second		Size of cylinders amended.
Vallance, A.	Sefton district	Threshing only	8	9	Locomotive and traction		Late John Vallance, Sefton.
Waimairi County Council	Papanui	Road-roller	7	5¾ and 9	„		Late Riccarton Road Board, Riccarton.
Watts, T. J.	Rakaia	General	8	6⅜ and 11	„		Additional.
Whyte, James	Oxford district	„	6	8	„		Late H. Mehrtens, Rangiora.
Williams and Meares	Christchurch district	„	8	9	„		Late W. F. Parkinson, Kaituna.
Young, James	Sefton district	„	9	6½ and 10	„		Late James Bennett, Ashley.

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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 SOUTH DISTRICT.				
Andrews, M.	Pleasant Point	General	8	6½ and 11¾	Locomotive and traction	Size of cylinders amended.
Bennett, W. J.	Ashburton	,,	8	9	,,	Late Alexander Holmes, Rakaia.
Bennison Bros.	Tinwald	,,	8	6¼ and 10½	,,	Late J. Burgess, Mayfield.
Campbell Bros.	Totara Valley	Threshing only	8	9	,,	Additional.
Campbell, P.	Hakataramea	General	10	6¾ and 11½	,,	Size of cylinders amended
Chapman, H.	Willowby	Chaffcutting only	7	8	,,	Late Chapman Bros., Willowby.
Chisnall, W.	Hind's	General	8	6 and 10½	,,	Size of cylinders amended.
Church, A. E.	Rakaia	,,	8	9	,,	Late M. Tully, Dorie.
Church, E. G.	,,	,,	8	9	,,	Late Ronald Campbell, Dromore.
,,	Ashburton	,,	9	6½ and 11	,,	Late Thruch Bros., Ashburton.
Clark, W. J.	Levels	,,	7	9	,,	Late W. Hayman, Studholme Junction.
Coward, B.	Hackthorne	,,	7	6 and 10	,,	Late J. Burgess, Mayfield.
Crumb Bros.	Ashburton	Brickmaking	16	6½ and 11	Second class	Size of cylinders amended.
Davison, W.	Rakaia	General	10	6¾ and 11½	Locomotive and traction	,, ,,
Donnithorne, F. J.	Temuka	,,	8	9	,,	Size of cylinder amended.
Douglas, S. J.	,,	,,	8	9	,,	,, ,,
,,	,,	Hauling	8	6⅜ and 11	,,	Additional.
Fibbes, A.	Timaru	General	8	7½ and 10	,,	Late Fibbes and Clymer, Timaru.
Hawkins, Thomas, and Son	Waimate	,,	8	6¾ and 11½	,,	Size of cylinders amended.
Hayman, W. H.	Studholme Junction	,,	6	8	,,	Additional.
,,	,,	,,	8	6½ and 11½	,,	Size of cylinders amended.
Hayman, W.	,,	Threshing only	8	6¼ and 11½	,,	Size of cylinders amended; late T. Washington, Temuka.
Hearn, C. F.	Rangitata Island	General	8	6½ and 10½	,,	Late Hearn and Stevens, Rangitata Island.
Hicks, George	Hunter	,,	8	9	,,	Additional.
Johnston, A.	Fairview	,,	8	6¼ and 10½	,,	Late A. Ivey, Fairview.
Kellahan, William	,,	,,	8	6½ and 11	,,	Late Thomas Ward, Fairview.
King, George	Washdyke	,,	7	7½	,,	Size of cylinder amended.
Kingsbury, R. H.	Kyle	,,	8	6½ and 11	,,	Size of cylinders amended.
Kirk and Goddard	Saltwater Creek	Brickmaking	8	9¼	,,	Late A. S. Palmer, Washdyke.
Knox Bros.	Ashburton	General	8	6½ and 10	,,	Size of cylinders amended.
Ledingham, George	Waimate	Threshing only	8	6½ and 10½	,,	Late M. Andrews, Pleasant Point.
Lyons Bros.	Temuka	Threshing		,,	,,	Late W. Lyons and Son, Temuka.
McLachlan, John	Methven	General	9	6½ and 10	,,	Additional.
,,	,,	,,	8	6⅞ and 10½	,,	,,
McLeod, Alexander	Geraldine	,,	9	6¾ and 11½	,,	Size of cylinders amended; late McLeod and Beattie, Geraldine.
McMillan, H.	Timaru	Stone-crushing	8	9	,,	Late James Todd, Timaru.
Murdoch, John	,,	Sawmill	25	10	Second class	Additional.
Orr and Co., John	Ashburton	General	8	9	Locomotive and traction	Late Armer, Orr, and Co., Ashburton.
Pelvin Bros.	Glenavy	,,	8	6¾ and 11½	,,	Size of cylinders amended.
Preddy, J.	Temuka	,,	8	9	,,	Late G. Preddy, Temuka.
Quinn, William	Makikihi	Brickmaking	20	8¼ and 13¼	First class	Late Robert Ross, Alexandra South.
Saunderson and Keefe	Levels	General	8	9	Locomotive and traction	Late Campbell Bros., Totara Valley.

Scannell, J. M.	Albury	Threshing	8	9½	„	Size of cylinder amended.
Sharp and Wilson	St. Andrew's	General	8	6¼ and 10½	„	Late South and Galletly, St. Andrew's.
Stewart, Arthur	Rakaia	„	8	9½	„	Size of cylinder amended.
Tate, George	Orton	„	6	7¾	„	Size of cylinder amended; late J. W. Bill, Temuka.
Timaru Milling Company	Timaru	Flour-mill	140	16 and 29	First class	Size of cylinders amended.
Townley, W.	Geraldine	General	6	7¾	Locomotive and traction	Additional.
Whyte and Litten	Peel Forest	Hauling	8	9	„	„
Wills, W. J.	Waimate	General	8	9	„	Late Thomas Prue, Waimate.
Wilson, Thomas	Tinwald	„	8	6½ and 10½	„	Size of cylinders amended.

HAWKE'S BAY DISTRICT.

Barry, D.	Gisborne	Brewery	62	12	Second class	Size of cylinder amended; late Alpha Sawmilling Company, Gisborne.
Bull Bros.	The Spit	Hauling	7	6 and 10	Locomotive and traction	Late Green Bros., Tikokino.
Butters, Hale, and Co.	Napier	„	6	5½ and 9	„	Late W. Walker, Rissington.
Gisborne Borough Council	Ormond	5-ton crane	6	Two 7½	„	Additional.
„	Gisborne	Hauling	6	5¼ and 7¼	„	„
Gisborne Harbour Board	„	„	14	Two 9	„	Size of cylinders amended.
Gisborne Laundry Company	„	Laundry	21½	8 5/16	Second class	Additional.
Holt, R., and Sons	Hastings	Sawmill	40	22	First class	Size of cylinder amended.
Kemp, C. H.	Taradale	Hauling	5	5¾ and 10	Locomotive and traction	Late W. S. Jones, Puketapu.
Kotuku Oilfields Syndicate (Limited)	Dannevirke	Steaming	21	10½	Second class	Additional.
Mills Bros.	Hastings	Hauling	6	6½ and 10½	Locomotive and traction	Late Powdrell Bros., Hastings.
„	„	„	6	6 and 10½	„	„ „
Napier Borough Council	Napier	Pumping water	100	20 and 40	First class	Size of cylinders amended.
„	„	„	40	21 and 42	„	„ „
„	„	Destructor	58	10	Second class	Additional.
Napier Hospital Board	„	Steaming	42	Nil	„	„
Newrich, F. C.	Hastings	Threshing	6	6½ and 11¼	Locomotive and traction	Size of cylinders amended.
Ramlose Bros.	Napier	Hauling	6	6 and 10	„	Late A. G. Williams, Rissington.
Tiratu Sawmill Company	Mangatera	Sawmill	39	12	Second class	Additional.
Tokomaru Bay Harbour Board	Tokomaru Bay	Traction	5	Two 6	Locomotive and traction	„
Tokomaru Sheep-farmers' Freezing Company	„	Freezing	107½	18 and 22	First class	Size of cylinders amended.
„ „	„	„	107½	„	„	„ „
„ „	„	„	107½	„	„	„ „
Williams, A. J.	Rissington	Traction	7	6 and 10	Locomotive and traction	Additional.

MARLBOROUGH DISTRICT

Bary, A.	Tuamarina	Brickworks	18	10¾ and 4½	Second class	Size of cylinders amended.
Brownlee and Co.	Blackball	Sawmill	40	Two 16	First class	„ „
Bryant Bros.	Pelorus Valley	„	28	10¼	Second class	Additional.
Christchurch Meat Company	Picton	By-product plant	12	12*	„	Size of cylinder amended.
„	„	„	12	12*	„	„ „
Ham, R.	Blenheim	General work	8	6½ and 10½	Locomotive and traction	Late Smart Bros. Timber Company, Blenheim.
Jermyn, J.	Awatere district	Traction-engine	6	5½ and 9	„	Late H. S. Jones, Blenheim.
Marlborough Timber Company	Opouri Valley	Sawmill	73	17⅛	First class	Size of cylinder amended.
Parkes Bros.	Blenheim district	Traction-engine	7	6 and 10	Locomotive and traction	Late Smart Bros., Blenheim.

* These boilers are driving one shaft.

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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 NORTH DISTRICT.						
Bird, A. D.	Whangamoa	Sawmill	12	Two $9\frac{5}{16}$	Second class	Additional.
Bunn, R.	Murchison	,,	14	Two $9\frac{1}{4}$	,,	Late William Baigent, East Takaka.
Currin, F. S.	Teal Valley	,,	12	Two $8\frac{1}{2}$	,,	Additional.
Edmondson Bros.	Takaka	,,	14	Two $8\frac{1}{2}$	,,	Late Fauchelle and Co., Takaka.
Foster, John	Motueka	Pumping	20	$11\frac{1}{4}$	,,	Size of cylinder amended; late William Grant, Rockville.
,,	,,	Dredging	25	Two 12, two $5\frac{1}{2}$, two 6	First class	Additional.
Grant, George	Puramahoi	Sawmill	18	10	Second-class	Late William Grant, Rockville.
Grant, William	Rockville	Planing and sawmill	40	$9\frac{1}{4}$	,,	Late W. Y. Grant, Bainham.
Hewetson, Thomas	Upper Moutere	General work	5	$5\frac{1}{4}$ and $9\frac{1}{4}$	Locomotive and traction	Size of cylinders amended.
Neale, Thomas	Upper Tadmor	Sawmill	20		Second class	Late Hutson and Co., Nelson.
Neiman, Charles H.	Waimeas	Traction-engine	6	8	Locomotive and traction	Late Satherly and Neiman, Appleby.
Nelson Steam Laundry Company	Nelson	Steam laundry	20	7	Second class	Additional.
Puponga Coal Company	Puponga	Steaming	47	Two 18	First class	,,
Robertson Bros.	Rai Valley	Locomotive	10	10	Locomotive and traction	,,
,,	Nelson	Sash and door factory	30	$12\frac{3}{4}$	Second class	Size of cylinder amended.
Sigglekow Bros.	Waimeas	Traction-engine	6	8	Locomotive and traction	Late John Snowden, Brightwater.
Stilwell and Co.	Motueka	Sash and door factory	16	$10\frac{1}{4}$	Second class	Size of cylinder amended.
Tunnicliffe, H.	Wangapeka	Sawmill	12	Two $8\frac{1}{2}$	,,	Additional.
Win Bros.	Dovedale	Traction-engine	6	8	Locomotive and traction	Late J. W. Win, Dovedale.
NELSON SOUTH DISTRICT.						
Big River Gold-mining Company	Big River	Mining	184	One 16, two 20	First class and winding	Additional.
Bowater and Bryan	Cape Foulwind	Sawmill	28	$17\frac{1}{4}$	First class	Size of cylinder amended.
,,	,,	,,	23	Two 6	Second class	Size of cylinders amended.
,,	Westport	,,	30	14	,,	Size of cylinder amended.
Carew, T.	Nine-mile Road	,,	24	$9\frac{3}{16}$	,,	Late Carew and McKenzie, Westport.
Consolidated Goldfields of New Zealand (Limited)	Crushington	Mining	60	$12\frac{3}{4}$ and 20	First class	Size of cylinders amended.
,, ,, ,,	,,	,,	60	,,	,,	,, ,,
,, ,, ,,	Globe Hill	,,	50	Two 16, one 24, one $6\frac{1}{2}$	First class and winding	,, ,,
,, ,, ,,	,,	Winding	85	Ditto	,,	,, ,,
,, ,, ,,	Quartz Creek	Mining	20	12	Second class	Size of cylinder amended.
,, ,, ,,	Waiuta	,,	56	Four 14, two 7, one 16, one $4\frac{1}{2}$	First class and winding	Size of cylinders amended.
,, ,, ,,	,,	,,	50	Ditto	,,	,, ,,
Lines, J.	Buller Road	Sawmill	20	8 and $12\frac{3}{4}$	First class	Late Smeaton Syndicate, Reefton.
McKay, G.	Cape Foulwind	,,	30	Two 8	Second class	Late Bowater and Bryan, Westport.
Murray Creek Gold-mining Company	Murray Creek	Compressor	60	16	First class	Additional.
Nahr, W., and Co.	Westport	Brewery	23	6	Second class	Late Gilberd and Sons, Wanganui.
Westport Coal Company	Coalbrookdale	Mining	80	10, two 16, three 14, two 12, three 8, four 6	First class	Size of cylinders amended.

,,	,,	,,	80	Ditto	,,	,,	,,
,,	,,	,,	84	,,	,,	,,	,,
,,	Denniston	,,	84	Three 16, six 8, four 7, three 6, two 5	,,	,,	,,
,,	,,	,,	84	Ditto	,,	,,	,,
,,	,,	,,	84	,,	,,	,,	,,
,,	,,	,,	84	,,	,,	,,	,,
Westport Stockton Coal Company	Ngakawau	Power-station	95	Two 12, two 17, two 8, two 26, 6, 5½	,,	,,	,,
,,	,,	,,	95	Ditto	,,	,,	,,
,,	,,	Mining	95	,,	,,	,,	,,
,,	,,	,,	95	,,	,,	,,	,,
Yellow Pine Timber Company	Mokihinui	Sawmill	12	12⅜	Second class	,,	,,

OTAGO DISTRICT.

Anderson and Montgomerie	Ashley Downs	Threshing and chaff-cutting only	9	9	Locomotive and traction	Late J. Bagrie, Clinton.	
Ballock, R.	Clinton district	Threshing only	8	9	,,	Additional.	
Beattie, David, jun.	Tapanui district	,,	8	9	,,	Late Robert Smith, Kelso.	
Bichan, G., and Co.	Otanomomo	Flax-mill	20	9 and 14	First class	Late Lady Roxburgh Gold-dredging Company, Dunedin.	
,, ,,	,,	,,	20	,,	,,	Size of cylinders amended.	
Bishop, D.	Hilderthorpe	Threshing	6	7½	Locomotive and traction	Late J. Hamilton, Palmerston South.	
Brown, A. and R.	Blue Mountains	Sawmill	14	7¼ and 11¼	Second class	Size of cylinders amended.	
Bruce Railway and Coal Company	Fortification	Hauling	56	Two 8⅜	,,	,,	
Bruce Woollen Mills	Milton	Woollen-mills	16	9 and 14	First class	Late Allandale Coal Company, Bushey.	
Buchanan, W.	Beaumont district	General	8	6½ and 10	Locomotive and traction	Size of cylinders amended.	
Burt, A. and T.	Dunedin	Machine tools	30	Two 9, one 10, one 16	First class	,, ,,	
,,	,,	,,	30	,,	,,	,, ,,	
Carrodus and Polson	Windsor	General	6	7	Locomotive and traction	Additional.	
Chambers, Robert	Oamaru district	Threshing	8	9 5/32	,,	Size of cylinder amended.	
Christie, H. F.	Clydevale	Chaffcutting	7	8½	,,	Late T. D. Heenan, Greenfield.	
Christie, T. B.	Clydevale district	Threshing only	8	9	,,	Late Heenan and Hardy, Greenfield.	
Cross, R. L.	Kaihiku	General	8	9	,,	Late J. A. Main, Waiwera South.	
Crown Milling Company	Dunedin	Flour-mill	40	14 3/16 and 24	First class	Size of cylinders amended.	
Duncan and Co.	Tapanui district	Chaffcutting	7	8	Locomotive and traction	Additional.	
Dunedin Engineering and Steel Company	Dunedin	Machine tools	72	14 1/16	Second class	Size of cylinder amended.	
Earnscleugh Gold-dredging Company No. 2	Earnscleugh Flat	Gold-dredge No. 2	16	9 3/16 and 14	First class and two second class	Size of cylinders amended.	
,, ,,	,,	,,	16	,,	Ditto	,, ,,	
Electric Gold-dredging Company No. 2	Cromwell	Gold-dredge	20	8 and 12¾	,,	,, ,,	
Geddes, W. J.	Greenfield district	Threshing	9	9	Locomotive and traction	Additional.	
Geddis, J.	Palmerston South	Threshing only	6	9¾	,,	Size of cylinder amended.	
Gold and Scheelite Proprietary Company	Mount Highley	Quartz-crushing	16	7 and 11½	Second class	Late W. and G. Donaldson, Macrae's Flat.	
Golden Gate Gold-dredging Syndicate	Miller's Flat	Gold-dredge No. 2	20	7½ and 14	First class and two second class	Late Otago Gold-dredging Company No. 1, Dunedin.	
Hamilton Bros.	Glenledi	General	8	9¼	Locomotive and traction	Size of cylinder amended.	
,,	,,	,,	8	6¾ and 11½	,,	Size of cylinders amended.	
Hartley and Riley Gold-dredging Company	Cromwell	Gold-dredge	20	8 and 12¾	First class and two second class	Additional.	
Hogg and Co.	Dunedin	Sawmill	63	16	First class	Size of cylinder amended.	
,,	,,	,,	63	16	,,	,, ,,	

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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.
OTAGO DISTRICT—*continued.*						
Hogg, John	Glenledi	Flax-mill	12	Two 8¾	Second class	Late James Shiels, Dunedin.
Kempthorne, Prosser, and Co.	Dunedin	Chemicals	20	7 and 11¼	,,	Size of cylinders amended.
Knewstubb, John	Port Chalmers	Steaming	16	Two 7	,,	Additional.
Kyeburn Gold-dredging Syndicate	Kyeburn	Gold-dredge	36	9 and 14	First class	Late Otago Gold-dredging Company No. 2, Dunedin.
Leonard Bros.	Balclutha district	General	8	6½ and 11	Locomotive and traction	Size of cylinders amended.
Lyders, H.	Tawanui	Sawmill	16	Two 10	Second class	Late T. Latta, Owaka.
McGuigan, James	Glenledi district	General	8	9	Locomotive and traction	Late Hill and Frame, Herbert.
McSkimming, P., and Son	Benhar	Brick and tile making	64	18	First class	Size of cylinder amended.
Milne, James, jun.	Glenledi	General	7	8⅞	Locomotive and traction	Size of cylinder amended; late L. Pearson, Glenledi.
Mosgiel Woollen Company	Mosgiel	Woollen-mills	82	18 and 33	First class	Size of cylinders amended.
Murray, Roberts, and Co.	Abbotsford	Fellmongery	20	Nil	Second class	Engine not now connected.
New Alexandra Coal Company	Alexandra	Hauling and pumping	20	Two 10, two 8	Winding	Size of cylinders amended.
,, ,,	,,	,,	20	,,	,,	,, ,,
Newson, R. W.	Clinton district	General	6	8	Locomotive and traction	Late Newson and Petrie, Clinton.
New Zealand Coal and Oil Company	Kaitangata	Hauling	25	Two 26¼	First class	Size of cylinders amended.
,, ,,	,,	,,	25	,,	,,	,, ,,
,, ,,	,,	,,	20	,,	,,	,, ,,
,, ,,	,,	,,	70	,,	,,	,, ,,
,, ,,	,,	,,	23	,,	,,	,, ,,
,, ,,	,,	,,	40	,,	,,	,, ,,
New Zealand Paper Mills	Woodhaugh	Paper-mills	30	One 10, two 11	,,	,, ,,
Nineteen-hundred-and-eleven Gold-dredging Company	Alexandra	Gold-dredge	26	9 and 14	First class and two seconds	Late Island Basin Gold-dredging Company, Alexandra.
Otago Co-operative Tallow and By-products Company	Burnside	Steaming	42	Nil	Second class	Additional.
Otago Harbour Board	Dunedin	Pile-driving	5½	Two 9	,,	,,
Otago Hospital and Charitable Aid Board	,,	Heating	56	9	,,	Size of cylinder amended.
Reid and Gray	,,	Machine tools	166	9 and 16½	First class	Size of cylinders amended.
Ryan, Edmund	Waitahuna district	Chaffcutting only	6	8	Locomotive and traction	Additional
Ryan, Martin	,,	Threshing only	8	8⅝	,,	Late Ryan Bros., Waitahuna.
Sime, A.	Waitati	Sawmill	18	11	Second class	Size of cylinder amended.
Speirs and Gunn	Warepa district	General	8	9	Locomotive and traction	Late Newson, Petrie, and Gunn, Warepa.
,,	,,	,,	6	7¼	,,	Additional.
Sutherland Bros.	Te Houka district	Chaffcutting	5	6	,,	Late W. Sutherland, Te Houka.
Watson, James	Palmerston South	Flour-mill	16	11	Second class	Late Graham Bros., Palmerston South.
Willcox, Olonza	Dunback	General hauling	8	8½	Locomotive and traction	Additional.
SOUTHLAND DISTRICT.						
Aitken, George	Wendon Valley	Chaffcutting	7	8	Locomotive and traction	Late John Aitken, Waikaia.
Allan Bros.	Pukerau district	Threshing	8	9	,,	Late James McCartney, Gore.
Arcadian Gold-dredging Company	Gore	Gold-dredge	140	7 and 11½	Three second class	Late Lady Gordon Gold-dredging Company, Waikaia.

„	„	„	140	7 and 11¼	„	Late Kia Ora Revival Gold-dredging Company, Waikaia.
Arnold, A.	Kennington	Flax-mill	12	Two 9⅛	Second class	Late H. Bloomfield, Kennington.
„	West Plains	„	14	Two 8½	„	Size of cylinders amended; late J. E. Watson and Co., Invercargill.
Aspray, John	„	„	12	7 and 13 9/16	First class	Size of cylinders amended; late Broad, Small, and Co., Invercargill.
Ballock Bros.	Riversdale district	Threshing and chaff-cutting only	8	9	Locomotive and traction	Late W. and A. Johnston, Waikaka Valley.
„	„	Ditto	8	9	„	Additional.
Ballock, R.	„	„	8	9	„	„
Beauchop and Co.	Otautau	Sawmill	20	Two 10	Second class	Late Southland Timber Company, Waikouro.
Bichan, C.	Mataura	Flax-mill	20	10⅝	„	Additional.
Bray Bros.	Gore	Threshing only	8½	9	Locomotive and traction	„
Cairnmuir Coal Company	Bannockburn	Hauling	16	Two 8	Second class	Size of cylinders amended.
Carrick Gold-mining Company	Carrick	Quartz-crushing	16	8 and 12¾	First class	„ „
Charles, Edward	Waikaka Valley	Pumping and winding	16	Two 7¼	Second class	Late W. Jones, Waikaka Valley.
Crane and Palmer	Woodlands	Chaffcutting only	6	7¼	Locomotive and traction	Additional.
Crawford, R.	Mataura district	Threshing only	8	9	„	Late H. Tressider, Waimumu.
Cromwell and Bannockburn Collieries Company	Bannockburn	Hauling and pumping	20	10	Second class	Size of cylinder amended; late Lowburn Gold-dredging Company, Lowburn.
Cromwell Gold-dredging Syndicate	„	Gold-dredge	20	8 and 13	First class	Size of cylinders amended.
Crooks, John	Thornbury district	Chaffcutting	7	8	Locomotive and traction	Additional.
Edwards and party	Charlton Creek	Gold-dredge	16	6½ and 11¼	Two second class	Late Central Charlton Gold-dredging Company, Gore.
Egerton, W. A.	Caroline	Flax-mill	14	6½ and 11½	Second class	Late Sutherland and Co., Longbush.
Ferry Syndicate	Lowburn	Gold-dredge	20	8 and 13	First class and two second class	Size of cylinders amended; late Punt Gold-dredging Company, Lowburn.
Field and Thomson	Tokonui Gorge	Sawmill	14	Two 8½	Second class	Additional.
French, Walter	Waikaka district	Threshing	8	9	Locomotive and traction	Size of cylinder amended.
Garvie Bros.	Mabel Bush	Chaffcutting only	8	8	„	Size of cylinder amended; late William Reed, jun., Nightcaps.
Graham, Thomas A.	Gore district	Threshing	8	9	„	Additional.
Grant Bros.	Lime Hills	General	8	9	„	Late Hamilton and Grant, Rakiura.
„	„	„	9	9	„	Additional.
Hamilton, James	Winton	Pressing straw	7	6½	„	Late J. L. Wilson, Waianawa.
Hamilton and Co.	Tuatapere	Sawmill	20	Two 10	Second class	Late Wright, Stephenson and Co., Invercargill.
Hogg, Mrs. C.	Orepuki	Threshing and chaff-cutting only	8	9	Locomotive and traction	Late Printz Bros., Orepuki.
Hucklebridge, R. T.	Pahia	Pumping	14	Two 8½	Second class	Late Pahia Sluicing Company (Limited), Pahia.
Invercargill Borough Council	Otatara	Hauling	8	Two 7½	Locomotive and traction	Late McCallum and Co., Longbush.
Jarvis and Fosbender	New River	Flax-mill	20	Two 10	Second class	Additional.
Kilkelly Bros.	Spar Bush	Sawmill	27	Two 12	First class	„
Kingsland Bros. and Anderson (Limited)	West Plains	Fellmongery	20	7⅛ and 11	Second class	Size of cylinders amended; late Waimumu Gold-dredging Company, Gore.
Knowles, W.	Gore District	Threshing	8	9	Locomotive and traction	Late H. Ewan, Dipton.
Lindsay, John	Drummond district	General	8	9	„	Late A. W. Lindsay, Drummond.
Lynch, G.	Balfour	Hauling and pumping	17	Four 6	Second class	Late Lee and party, Waikaka Valley.
McIntyre, John	Orepuki	Sawmill	30	Two 12⅝	First class	Size of cylinders amended.
McKenzie Bros.	Benmore	Flax-mill	14	Two 8½	Second class	Late Kilkelly Bros., Grove Bush.
McLeary and Sinclair	Menzie's Ferry Dist.	Chaffcutting	6	7¼	Locomotive and traction	Late P. McDonald, Dipton.
McRobie and Tressider	Mataura	„	6	7	„	Additional.

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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.
		SOUTHLAND DISTRICT—*continued.*				
Marshall, E.	Mataura	Idle	14	7 and 11¼	Second class	Late Marshall's Freehold Gold-dredging Company, Mataura.
Mataura Dairy Factory	,,	Cheese-factory	31	9	,,	Additional.
Melvin, J.	Tokonui	Sawmill	20	Two 11	First class	Size of cylinders amended.
Miles, A.	South Hillend	Threshing and hauling	8	9	Locomotive and traction	Late F. J. Saunders, South Hillend.
Miller, James	Waikaka	Coal-mine	6	4½ and 7	,,	Additional.
Moffett Estate Company	Six-mile	Sawmill	28	Two 9½	Second class	,,
Murray and Craig	Waikaka district	Threshing	6	8	Locomotive and traction	Late D. W. Maslin, Waikaka.
Nelson, Hugh	Adams Flat	Gold-dredging	32	8 and 13	First class and two second class	Late Mystery Flat Gold-dredging Company, Waikaia.
New Zealand Beech Company	Scott's Gap	Sawmill	20	Two 10	Second class	Late A. and D. McPherson, Scott's Gap.
New Zealand Pine Company	Bush siding	,,	28	15½	First class	Size of cylinder amended.
,, ,,	Colac	,,	30	15½	,,	,,
O'Kane, H.	Makarewa	Brickworks	25	Two 7¼	Second class	Late T. E. Hodgkinson, Makarewa.
Patterson's Freehold Gold-dredging Company, No. 1	Waikaka Valley	Gold-dredge	16	7 and 11¼	Three second class	Size of cylinders amended; Late Waikaka Syndicate No. 1 Gold-dredging Company, Waikaka Valley.
Ramsay Bros.	Chatton	Hauling on incline	12	Two 7	Winding	Size of cylinders amended; late A. Cain, Waikaia.
Rise and Shine Gold-dredging Company	Lowburn	Gold-dredge	38	9 and 14	First and two second class	Size of cylinders amended.
Saunders, J.	South Hillend	Threshing, &c.	6	7¼	Locomotive and traction	Late F. J. Saunders, South Hillend.
Scott, J.	Hokonui district	General	6	8½	,,	Late D. Scott, Hokonui.
Smith and Aitken	Waikaka Valley	Gold-dredge	20	9 and 13	First and two second class	Late Duke of Gordon Gold-dredging Company, Waikaia.
Smith, William, and Co.	Invercargill	Woodworking	44	8¾ and 14	First class	Size of cylinders amended; late Southland Sand Brick Company, Grassmere.
Southland Farmers' Co-op. Association (Limited)	Winton	Idle	6	8	Locomotive and traction	Late J. F. Butler, Winton.
Southland Frozen Meat Company	Makarewa	Steaming-digesters and pumping	50	One 4, one 6, one 6	Second class	Size of cylinders amended.
Southland Sawmilling Company	Papatotara	Sawmill	32	Two 11	First class	Size of cylinders amended; late Jarvis, Ross, and Co., Invercargill.
,,	,,	,,	13	Two 8½	Second class	Late C. Bradley, Owaka.
Southland Soap Works	Wallacetown	Soapworks	35	10	,,	Late Southland Frozen Meat Company, Wallacetown.
Speeden, Adam	Gore	Woodworking	14	8½ and 10	,,	Additional.
Todd, T., and Sons	West Plains	Pipeworks	52	12 and 21	First class	Size of cylinders amended.
Waikaka United Gold-dredging Company	Little Waikaka	No. 2 Gold-dredge	30	8½ and 17	One first and two second class	,, ,,
,, ,,	,,	No. 3 Gold-dredge	36	9 and 14	Ditto	Additional.
Wallace County Council	Wallace	General	6½	8	Locomotive and traction	,,
Weatherburn, Thomas	Mataura	Threshing and chaff-cutting only	7	7	,,	Late George Clark, Edendale.
Williams, J. and R.	Drummond district	General	9	9	,,	Late P. McDonald, Lumsden.

TARANAKI DISTRICT.

Andrews, H. and L. H.	Okato district	Threshing and chaff-cutting only	5·6	5 and 8½	Locomotive and traction	Additional.
Bonithon Freehold Petroleum Company Extended (Limited)	Taranaki	Oil-boring	30		Second class	,,
Brown, Henry, and Co.	Inglewood	Sawmill	30	15⅛	First class	Size of cylinder amended.
Castlecliff Railway Company	Wanganui	Hauling	19	Two 10	Locomotive and traction	Additional.
Clare, F.	Waitara district	,,	7	8¾	,,	Late C. H. Johnston, Waitara.
Coastal Transport Company	New Plymouth	,,	5	4 and 6½	,,	Size of cylinders amended. Late A. Hatrick and Co., Wanganui.
,,	,,	,,	5	,,	,,	Size of cylinders amended.
Derby Bros.	Stratford	Sawmill	15	13½	Second class	Additional.
Edgar, H.	Hawera district	Chaffcutting	6	8	Locomotive and traction	Late Edgar and Pease, Hawera.
Egmont County Council	Opunake	Road-roller	7	5 and 8½	,,	Size of cylinders amended.
Eltham Co-operative Dairy Company	Eltham	Creamery	20	7¾	Second class	Additional.
Eltham County Council	Eltham district	Road-roller	6	5¼ and 9¼	Locomotive and traction	Size of cylinders amended.
Johnston Bros.	Waitara district	Hauling	6		,,	Additional.
,,	,,	,,	3·8	4½ and 7½	,,	,,
Kaponga Co-operative Dairy Company	Rowan	Cheese-factory	21¾	9	Second class	Size of cylinder amended.
Kaupokonui Co-operative Dairy Company	Kaupokonui	Dairy factory	20	8	,,	Additional.
Little and Co.	Sentry Hill	General work	6	5¼ and 9¼	Locomotive and traction	Late John Thom, New Plymouth.
Lowgarth Co-operative Dairy Company	Lowgarth	Cheese-factory	20	8	Second class	Additional.
McCluggage and Co.	Pohokura	Sawmill	20	13½	,,	Late Derby Bros., Stratford.
Mangatoki Co-operative Dairy Company	Matapau	Cheese-factory	21	8	,,	Size of cylinder amended.
,, ,,	Mangatoki	Central factory	30	12	,,	,, ,,
Mitchell and Co. (Limited)	Wanganui	Steaming	20	6	,,	Additional.
Nathan, Joseph, and Co.	Okoia	Butter-factory	17	8	,,	Late J. Buchanan, Okoia.
New Plymouth Borough Council	In district	Hauling	6	5¾ and 9	Locomotive and traction	Size of cylinders amended.
New Zealand Casein Company	Aramoho	Casein-factory	17	9	Second class	Additional.
Norris and Son	Patea	Brickworks	22	10½	,,	Late McKenna and Matthews, Patea.
Oturi Co-operative Dairy Company	Waverley	Cheese-factory	15½	7	,,	Additional.
Patea Farmers' Meat Freezing Company	Patea	Steaming	24	9	,,	,,
Quin Bros.	Hawera	Joinery work	20	12 and 24	First class	Size of cylinders amended.
,,	,,	Hauling	16	Two 9	Locomotive and traction	Additional.
Spiral Steel Pipe Company	Wanganui	Steel-pipe works	73	Two 12	First class	Size of cylinders amended.
Stratford Borough Council	Stratford	Road-roller	5	5½ and 8	Locomotive and traction	Additional.
Stratford County Council	,,	,,	5½	5¼ and 8½	,,	,,
Syme, George	Hawera	Joinery-works	37	12	Second class	,,
Symons, T. O.	New Plymouth	Hauling	5	5½ and 8½	Locomotive and traction	Late Cameron and Brooking, Stratford.
Taranaki New Zealand Oil Wells (Limited)	Moturoa	Oil-boring plant	25	Two 7¾	Second class	Size of cylinders amended. Late Taranaki Petroleum Company, New Plymouth.
,, ,, ,,	,,	,,	12	7 and 11	,,	Late Taranaki Petroleum Company, New Plymouth.
,, ,, ,,	,,	Refining oil	40	7¾, 8½, 9½, and 22	First class	Additional.
,, ,, ,,	,,	,,	40	,,	,,	,,
,, ,, ,,	,,	,,	40	,,	,,	,,
,, ,, ,,	,,	Oil-boring plant	29	10½	Second class	,,
Taranaki Oil Lands Acquisition and Development Company (Limited)	Taranaki	,,	..	13¾	,,	,,
Ditto	,,	,,	..	13¾	,,	,,
Waimate County Council	Manaia	Road-roller	5	5 and 8	Locomotive and traction	Size of cylinders amended.
Waitotara County Council	Waitotara district	,,	6	6 and 10	,,	Additional.
Whenuakura Co-operative Dairy Company	Whenuakura	Cheese-factory	22	10	Second class	,,
Wills, W.	Wanganui	Laundry	17		,,	,,

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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.			
Baigent Bros.	Akatarawa	Sawmill	14	Two 8½	Second class	Size of cylinders amended.
Bartholomew, P.	Weraroa	,,	40	10⅝	,,	Additional.
Blackball Coal Company	Hulk "Blackwall"	Hoisting coal	18	Four 6½, one 7	,,	Size of cylinders amended.
Booth, William, and Co.	Carterton	Sawmill	40	11½	,,	,, ,,
Brogden, J. C.	Masterton	Threshing, &c.	6	8	Locomotive and traction	Late McHattie and Brogden, Masterton.
Chapman, William, and Co.	Martinborough	Chaffcutting	8	6½ and 10½	,,	Size of cylinders amended.
Cook, T.	Petone	Cooperage	33	5½ and 9, 4¾ and 7¾	Second class	Additional.
Craw Bros.	Tokomaru	Flax-mill	12	7 and 10½	,,	Size of cylinders amended.
Daniell, C. E.	Masterton	Sawmill	25	11	,,	Size of cylinder amended.
Easson Limited	Wellington	Cooperage	28	12	,,	Late Wellington Cooperage and Box Factory Company, Wellington.
,,	,,	Sawmill	60	Two 12½	First class	Late Prouse Bros., Wellington.
Gardner and Yeoman	Makuri	,,	20	11 and 8½	Second class	Size of cylinders amended.
Gear Meat Company	Petone	Hauling	28	Two 8¾	Locomotive and traction	,, ,,
Greytown Dairy Company	Greytown	Dairy-factory	20	6	Second class	Additional.
Hausmann, C.	Kakara	Ploughing	10	7 and 11½	Locomotive and traction	Late B. R. Raynor, Landsdowne.
Herman and Weger	Paha Valley	Oil-works	40		Second class	Additional.
Hutt County Council	Lower Hutt	Hauling	6	Two 7¾	Locomotive and traction	Size of cylinders amended.
McLachlan Bros.	Kuripuni	Sawmill	16	Two 9½	Second class	Late A. McLeod, Opaki.
Minton, S. P.	Carterton	Chaffcutting	6½	6 and 9¾	Locomotive and traction	Additional.
Norling, J. E.	Alfredton	,,	4	4¼ and 6½	,,	Size of cylinders amended. Late Norling and Read, Pleckville.
Ora Flax-milling Company	Makerua	Flax-mill	25	10	Second class	Late Ross and Redshaw, Makerua.
,,	,,	,,	12	7 and 11	,,	Late T. H. Whitehead, Makerua.
Riverhead Sawmilling Company	Upper Hutt	Log-hauling	15	Two 8½	,,	Late Strand Bros., Akatarawa.
,,	,,	Sawmill	16	10¾	,,	,,
Seifert, George	Tokomaru	Flax-mill	47	8½ and 16	First class	Size of cylinders amended.
Te Opakete (Limited)	Kereru	,,	20	10	Second class	Size of cylinder amended.
Union Steamship Company (Limited)	Evans Bay	Laundry	32	Nil	,,	Engine not now connected.
,, ,,	Hulk "Arawata"	Hoisting coal	21	6 and 7	Second class	Size of cylinders amended.
Wellington City Council	Wellington	Electric light	350	13½, 19½, and 28	First class	,, ,,
,,	,,	,,	130	15 and 30	,,	,, ,,
,,	,,	,,	100	,,	,,	,, ,,
,,	,,	,,	100	,,	,,	,, ,,
Wellington Farmers' Meat Company	Waingawa	Freezing	107	11 and 22	,,	,, ,,
,, ,,	,,	,,	64	8 and 11½	,,	,, ,,
,, ,,	,,	,,	64	12½ and 20	,,	,, ,,
Wellington Gas Company	Wellington	Gas-making	30	5 and 8	Second class	,, ,,
,,	Miramar	Steaming	72	Nil	,,	Engine not now connected.
,,	,,	,,	72	Nil	,,	,, ,,
,,	,,	,,	7·5	Two 7½	Locomotive and traction	Additional.
Wellington Laundry	Wellington	Laundry	50	10 and 15	First class	Late W. Naismith and Co., Wellington.
Wellington Meat Export Company	Ngahauranga	Steaming	84	8½ and 14½	,,	Additional.
,, ,,	,,	,,	56	,,	,,	Size of cylinders amended.
Wellington Woollen Company	Petone	Woollen-mills	65	17½ and 35	,,	,, ,,
Whiteman, H. F. and J.	Akatarawa	Sawmill	22	12	Second class	Late Greenwood and Whiteman, Akatarawa.

WELLINGTON NORTH DISTRICT.

Broadbelt, A.	Ohakune	Log-hauling	17	Two 8	Second class	Additional.
"	"	Sawmill	37	15	First class	"
"	Feilding	Box-factory	40	12	Second class	"
Easton, F. S.	Piaka	Flax-mill	20	8⅛ and 13⅛	First class	Late A. and L. Seifert and Co., Shannon.
Edwards, R. G.	Marton district	General	6	8	Locomotive and traction	Late August Frederick, Marton.
Eggleton, William	Bunnythorpe district	"	6	8	"	Additional.
Frederick, August	Marton district	"	6	6 and 10	"	Late Parsons and Cockburn, Stanway.
Gaisford, E. C.	Westward Ho	Farm-work	7		"	Additional.
Gibbs and Nimmo	Foxton	Flax-mill	16	Two 9	Second class	"
"	"	"	12	7 and 12	"	Size of cylinders amended.
Jensen and Co.	Raetihi	Steaming	36		"	Additional.
Kairanga Dairy Company	Kairanga	Dairy factory	25	Nil	"	"
Lowe, F. F.	Feilding district	General	6	5 and 9	Locomotive and traction	"
Manawatu Roller Flour Mills	Palmerston North	Flour-mill	32	6, 9, and 16	First class	Size of cylinders amended.
Morris Bros.	Marton district	General	6	6 and 10	Locomotive and traction	" "
New Zealand Powell Wood Process (Limited)	Rangataua	Wood-preserving	50	8 and 13	First class	Additional.
Ora Flax-milling Company	Moutoa	Flax-mill	26	10¾	Second class	Late Coley Bros., Foxton.
Phillips, W. J.	Sanson district	General	7	8½	Locomotive and traction	Late W. J. M. Harvey, Marton.
Prentice, J.	Palmerston North	Brickworks	17	9	Second class	Additional.
Rata Co-operative Dairy Company	Rata	Dairy factory	25	9	"	Size of cylinder amended.
Ross, William, and Son (Limited)	Foxton	Steaming	20½	Nil	"	Additional.
Silver Pine Timber Company (Limited)	Ohakune	Sawmill	36	14⅛	"	"
Spiers and Gibbs	Foxton	Steaming	14	Two 8½	"	"
Taihape Co-operative Dairy Company	Ohutu	Butter-factory	20	8	"	Size of cylinder amended.

WESTLAND DISTRICT.

Butler Bros.	Ruatapu	Hauling	14	Two 8	Locomotive and traction	Late Stratford and Blair, Greymouth.
Consolidated Goldfields of New Zealand (Limited)	Waiutu	Mining	48	Four 14, one 16, two 7, one 4½	First class and winding	Size of cylinders amended.
Dobson Stone Syndicate	Dobson	Stone-crushing	20	8 and 12¾	First class	" "
Erickson, George, and Son	Orwell Creek	Sawmill	20	Two 10	Second class	Additional.
Frying Pan Gold-dredging Company	Cronadun	Gold-dredge	25	8 and 12¾	First class	Late Hessey and Cameron, Reefton.
Gilbert and Murphy	Cape Terrace	Sawmill	32	18	"	Late Flowery Creek Sawmilling Company, Stafford.
Greymouth Borough Council	Greymouth	Fire-engine	7	Three 7	Second class	Additional.
Greymouth Harbour Board	"	Hauling	22	Two 10	Locomotive and traction	"
Lake Brunner Oil Company	Kotuku	Oil-boring	19	9	Second class	Lake Kotuku Oil Syndicate, Kotuku.
Long and Daly	Blackball	Sawmill	16	Two 9¼	"	Size of cylinders amended; late New Zealand Stove-pipe Company, Hokitika.
New Zealand Government (State Coal-mines)	Extension	Compressor	43	16	Exempt	Size of cylinder amended
" "	State Collieries	Mining	36	Two 10¼	"	Size of cylinders amended.
Ogilvie and Co.	Gladstone	Hauler	16	Two 8	Second class	Late Butler Bros., Ruatapu.
Stewart, A. A.	Coal Creek	Hauling	2½	7	Locomotive and traction	Additional.
Stratford and Blair	Kaimata	"	28	Two 7½	"	"
"	Hukarere	Sawmill	16	Two 9½	Second class	Size of cylinders amended.
Stuart and Chapman	Mikonui	"	30	14	"	Size of cylinder amended; late Robertson and party, Ross.
Te Kinga Land and Timber Company	Cashmere Bay	"	35	17	First class	Late Manson and Co., Te Kinga.
" "	Te Kinga	"	60	Two 12¼	"	" "
" "	"	Hauling	6	6 and 10	Locomotive and traction	" "

No. 21.—Return showing the Names of Owners of Additional Boilers and Transfers, etc.—*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.
			WESTLAND DISTRICT—*continued.*			
Try Again Gold-dredging Company	Nelson Creek ..	Gold-dredge ..	20	8 and $12\frac{3}{4}$ ..	First class	Late New Trafalgar Gold-dredging Company, Nelson Creek.
Waimea Sawmilling Company	Awatuna.. ..	Sawmill	20	Two 10	Second class	Late Kumara-Kapitea Sawmilling Company, Greymouth.
Wilandt, G.	Kanieri	Hauling	6	$6\frac{1}{4}$ and $10\frac{3}{4}$ ..	Locomotive and traction	Additional.
Workshop Gold-dredging Company	Antonio's Creek ..	Gold-dredge ..	30	$8\frac{1}{8}$ and $12\frac{7}{8}$ ..	First class	Size of cylinders amended.

Approximate Cost of Paper.—Preparation, not given; printing (1,950 copies), £65.

By Authority: John Mackay, Government Printer, Wellington.—1913.

Price 1s. 6d.]