1907.

NEW ZEALAND.

INSPECTION OF MACHINERY:

ANNUAL REPORT OF THE DEPARTMENT FOR 1906-7.

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, 1st June, 1907.

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

I have, &c.,

His Excellency the Right Hon. Lord Plunket, K.C.V.O., Governor of New Zealand.

SIR,---

J. A. MILLAR, Minister in Charge of the Inspection of Machinery Department.

The Chief Inspector of Machinery to the Hon. the Minister in Charge of the Inspection of Machinery Department.

Inspection of Machinery Department, Customhouse Buildings, Wellington, 1st May, 1907.

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, 1907.

During the past year satisfactory progress has been made by the Department in all the branches of its work, and although at the end of the year there were still a number of boilers, machinery, and steamers overdue for inspection, yet I am glad to state that during the past year there has been more work accomplished by the Department than during any previous year. The work to be done in some of the country districts is often accomplished under very trying experiences, for the boilers and machinery now being erected in bush settlements are most difficult of access.

The Inspectors have as far as possible tried to make their inspections at times suitable to the owners; it has, however, been found impossible to do so in all cases without going twice over the same district. A convenient time to suit every industry and owner could not be arranged, as it would require a very large increase in the Department's staff to do so. New sawmilling industries are springing up along the extensions of the North Island Main Trunk Railway, and dairying and flax industries are being developed over all parts of New Zealand, more especially in the Auckland Provincial District. The gold-dredging industry is still being prosecuted with vigour in Otago and Southland, and in some parts of Westland, and a large amount of machinery is employed on these dredges.

During the year I have been able to visit the principal inspection districts and the district offices of this Department.

The engineering trade generally has been depressed during the past year, and very little new work has been carried out. A noticeable feature of the past year has been the great strides made by gas and oil engines as a motive power.

The suction gas-producer has been installed at several factories in the colony during the year, with marked success. As there are several designs on the market, this proves that these engines have now passed their experimental stages. By the use of these engines a great economy in power-production has been obtained. Their great advantages are that there are few mechanical parts to get out of order, and they require but little attention. The cost of repairs and renewals is small, being principally in connection with the part exposed to continuous heat, such as the firebars and brick linings.

1-H. 15A.

Boilers inspected.

During the year 5,379 inspections have been made and certificates issued for them. Nearly every district has been visited, and, with the exception of the Marlborough and some parts of the Auckland Districts, our boiler-inspection work is practically complete to date. The machinery in motion at all works visited has all been duly inspected at such annual visits. There are some splendid installations of machinery now in New Zealand.

GOVERNMENT BOILERS AND MACHINERY.

The boilers at most of the Government institutions have been examined, as well as the other machinery appliances installed, and include seventy-seven boilers, four lifts, nine Pelton and other water-wheels, one gas-engine, two oil-engines.

A considerable amount of time was occupied in performing these inspections, for which no fees

were charged. Certificates were issued for all of these inspections.

Return No. 1 gives full particulars of boilers and classes of machinery, together with the fees for these inspections.

DEFECTS IN BOILERS AND FITTINGS.

A long list of defects in boilers and fittings are set out in Return No. 2. A great many of these were considered very dangerous, and show clearly the need of rigid inspections by skilled and experienced men. Even in the short space of a year, between the annual inspection-visits, dangerous defects develop in most unexpected places in steam-boilers.

The total number of defects discovered in boilers and fittings is 1,883. Seventy-four of these

were dangerous.

Return No. 2 sets out these defects in detail.

NEW BOILERS.

The number of new boilers added to our books during the year total 388. The horse-power of these amounts to 4,971: 223 of these, totalling 3,094-horse power, were made in the colony, and 165, totalling 1,877-horse power, were imported.

The following table shows the number and horse-power of these boilers, and the districts to which

they have gone :-

| | | | | Color | nial. | Impo | orted. | Total. | |
|--------------|-----------|-----|-----|---------|------------------|---------|------------------|---------|------------------|
| | District. | | | Number. | Horse- power. | Number. | Horse- power. | Number. | Horse- power. |
| Auckland | | | | 98 | 949 | 48 | 497 | 146 | 1,446 |
| Hawke's Bay | | | | 17 | 188 | 10 | 108 | 27 | 296 |
| Taranaki | | | | 6 | 63 | 6 | 25 | 12 | 88 |
| Wellington . | | | | 50 | 716 | 49 | 415 | 99 | 1,131 |
| Marlborough | | | | 1 | 15 | 1 | 3 | 2 | 18 |
| Nelson North | | | | 1 | 40 | 1 | 10 | 2 | 50 |
| Nelson South | ••• | | | 8 | 433 | | | 8 | 433 |
| Westland | *** | | | 9 | 196 | 2 | 10 | 11 | 206 |
| Canterbury | ••• | ,,, | | 23 | 296 | 20 | 427 | 43 | 723 |
| Timaru | | | | | | 5 | 77 | 5 | 77 |
| Otago | | | ••• | 3 | 74 | 11 | 57 | 14 | 131 |
| Southland | ••• | ••• | | 7 | 124 | 12 | 248 | 19 | 372 |
| | | | | 223 | 3,094 | 165 | 1,877 | 388 | 4,971 |

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

The total inspections made of this class of machinery amount to 3,397, and are made up as follows: Gas-engines, 861; oil-engines, 573; motors and hoists, 1,200; machinery inspections, 763.

FENCING OF MACHINERY.

Return No. 4 gives full particulars of what has been done in the direction of guarding dangerous parts of machinery

EXAMINATION OF ENGINE-DRIVERS.

This branch of the work of the Department is an ever-increasing one. These examinations are now held all over the country, to suit candidates, at suitable places outside the centres named in the regulations. These places are chosen as being central for that particular part of the district in which the examination is held.

This year 1,065 candidates came up for examination, and of this number 777 candidates success-

fully passed these examinations, and 288 failed to pass,

The examinations held were for extra first-class engineer, first-class engine-drivers, second-class engine-drivers, winding-engine drivers, traction and locomotive engine drivers.

3

A detailed list of the candidates who passed these examinations, together with the grades and classes

of examination, is shown in Returns Nos. 7 to 13, inclusive.

The various examinations were held at the following places: namely, Alexandra South,* Auckland,* Blenheim, Bluff, Christchurch,* Cromwell, Dannevirke,* Dunedin,* Fairburn's, Feilding,* Foxton.* Gisborne,* Greymouth,* Havelock,* Hokitika, Invercargill,* Levin, Mangonui, Masterton,* Napier,* Nelson,* Nevis, New Plymouth, Opononi, Palmerston North, Picton, Reefton, Rotorua, Roxburgh, Seddon, Shannon, Timaru,* Waitapu, Wanganui,* Wellington,* Westport.*

During the year there were thirteen meetings held by the Board of Examiners in Wellington, under the Inspection of Machinery Act, to issue certificates to engine-drivers, and to deal with the issue of

reciprocal certificates from other colonies, as well as other matters.

ACCIDENTS.

It is with regret that I have to report a serious accident that occurred on the 5th April, 1906, to a boiler of the locomotive type belonging to Messrs. Wilson and Co., sawmillers, Kumara Junction, which caused the death of James Bull, John Charles Le Compte, and George Wilson, and injury to Joseph Batey. The boiler was of the ordinary portable locomotive type, and was made throughout of iron. It was about 12 ft. long over all. The barrel was 7 ft. 9 in. long, approximately, and 3 ft. 5 in. in diameter, and was made up of two rings lapped and single-riveted, the thickness of plating being $\frac{3}{8}$ in. The firebox was 34 in. wide, 46 in. long, and 42 in. high. Its sides and ends were stayed with screwed and riveted stays $\frac{3}{4}$ in. diameter of thread, pitched at front plate 5 in. by $4\frac{1}{2}$ in., two sides $5\frac{1}{2}$ in. Its crown was supported by four girders $5\frac{1}{2}$ in. apart, and having seven bolts in each girder. There were forty-one iron tubes, each $2\frac{1}{2}$ in. in diameter, expanded into tube-plates at either end, and three longitudinal stays, $\frac{1}{16}$ in. in diameter at bottom of thread, in the steam-space above the tubes. The outer shell of firebox was $\frac{3}{8}$ in. thick. The inner firebox-plating was $\frac{3}{8}$ in., and the crown-plate was $\frac{1}{2}$ in. thick, and the tube-plates $\frac{1}{2}$ in. All the seams of the boiler were single-riveted, the rivets being spaced about 2 in. apart. There were eight mud-hole openings, $3\frac{1}{2}$ in. by 3 in., at bottom of the firebox, and manhole-opening in the cylindrical portion of the boiler, $10\frac{1}{2}$ in. diameter. The mountings consisted of one safety-valve, $2\frac{3}{4}$ in. diameter, loaded by direct spring; one steam-pressure gauge; one glass water-gauge and cocks complete; two test-cocks; one regulator-valve; one blow-off cock; one pump and check-valve; one injector and check-valve (injector of Pemberthy pattern). The boiler was made by Messrs. Marshall and Sons, of Gainsborough, in England, and was twenty-six years old. It had during that time be

Nature of explosion: The outer shell of firebox ruptured at foundation ring, which was of the Z-iron construction, tearing the plate away at the line of rivets the whole width of plate, forcing the plate backwards the whole height of the right-hand side of box, and also the whole of the crown portion as far as the top row of stays on the left-hand side of the box. The shell plating of barrel-end and firebox-plating was rent asunder, and the barrel was hurled about 40 ft., at about an angle of 15°. The firebox took a direction at right angles, and landed about 60 ft. away. A portion of the roofing over the boiler was demolished and the engine was wrecked, the fly-wheel broken in pieces, the crank-shaft broken in two pieces, and the various parts of the engine scattered in all directions. The engine was bolted to the top of boiler-shell plating, and was of the high-pressure type, with two cylinders. The

crank-shaft, with its brackets, was placed immediately over outer crown of firebox.

The cause of the explosion was due to the failure of about twelve stays in the right-hand side of firebox. These firebox-stays were screwed into inside and outside plating and had their ends riveted over. The twelve stays that were broken were situated near the top edge of plating. These twelve stays carrying away caused the plate to bulge, which threw a greater strain on the remaining stays on the same side. This bulging would tend also to set up a shearing strain on the remaining stays, as it would shorten the plate. The remaining stays were unable to withstand it, and the foundation

ring, after all the stays had been broken, carried away in line of rivets.

The scantlings of the boiler generally showed very little wear-and-tear. The plating was remarkably well preserved and the boiler appeared to have been exceedingly well cared for, and all the inner surfaces were clean and free from incrustation. This boiler was inspected first on the 4th August, 1883, and was at that time owned by by the Anchor Foundry Company at Port Nelson, and was in their possession and used until 1886. In 1888 it was owned by Mr. Otto Petersen, of Greymouth, and used in a sawmill there until 1892. Messrs. Wilson and Co. became owners of it in 1896. The boiler since it was first used in 1883 has, with the exception of six years, worked continuously and has never been reported in bad order. It was last inspected by our Inspector on the 24th October, 1905, and reported by him to be in fair order. In a conversation I had with Mr. Wilson, one of the present owners, and who was present when the Inspector made his inspection, he assured me that the Inspector made a thorough examination of the boiler, and was most careful in every particular. I had a chat with the engine-driver on the 12th April. He was unable to throw any light on the explosion, but he said that there was neither overpressure nor shortness of water.

The owners were most courteous and helpful to me in my investigations, and answered any questions I put to them at once. I had the steam-pressure gauge tested for correctness at the railway

workshops at Greymouth, and found that it registered 82 lb. when 70 lb. was on the boiler.

The loss of life is to be deplored, but had the mill not been stopped at the time of the explosion a greater loss of life would have probably taken place. Several of the employees had left the mill just

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

a few minutes before the accident occurred. The stoppage took place in order to sharpen up the saws in the mill. The inquest before the Coroner, who is also the Magistrate in the district, took place at Kumara on the 13th April, and I gave evidence at the inquest. The hearing of the evidence took the whole of the day, and the verdict was not given until late in the evening. The verdict was that no blame was attachable to any one, and there was also a recommendation that an Inspector of Machinery should be placed at Hokitika or Greymouth.

There were several other accidents with machinery, some of which proved fatal. Full particulars

of these are given in Returns Nos. 5 and 6.

POSTAL AND POLICE DEPARTMENTS.

The officers of both these Departments very materially assisted this Department. The former collected all the fees for boiler-inspection, and the latter not only looked up defaulters, but assisted in the various prosecutions for breaches of the Act, of which there were several during the year.

MARINE ENGINEERS' EXAMINATIONS.

These examinations for certificates of competency have been held at the following places: viz., Auckland,* Napier,* Wanganui,* Wellington,* Nelson,* Christchurch,* Timaru,* Dunedin,* Invercargill,* Gisborne, Foxton, Greymouth, Reefton, Westport, and Russell.

The total number of applicants who applied to be examined amounted to 224. Of this number, 183 passed these examinations successfully, and forty-one failed. Of those who failed, there were three first-class marine engineers, three second-class marine engineers, fourteen third-class marine engineers, fourteen river engineers, three marine-engine drivers, and four engineers of auxiliary-powered

A new book of regulations for the examination of marine engineers is in course of preparation, and will be issued shortly. This edition will contain all the new matter contained in the last new Book of Regulations for Engineers, issued by the Board of Trade in Great Britain in 1906.

Return No. 14 gives the names of the successful candidates and the various grades for which they passed, the total number of applicants, total fees payable, and the number of candidates who failed to pass such examinations.

EXPLOSIVES.

During the year 239 written permits were issued by this Department in Wellington for the carriage of explosives on steamers.

Annual Surveys of Steamships and Auxiliary-powered Vessels.

The annual survey of steamers and other vessels has been well kept up during the year, and all this branch of our work is fairly well up to date. The repairs carried out and followed up to completion at these surveys has entailed a great deal of supervision by the Surveyors of Ships of this Department. The details of inspection are added to every year by the Board of Trade, in new circulars issued for the guidance of Surveyors. This year definite instructions were issued to all Surveyors on the testing of auxiliary piping in steamers. In past years attention has been especially given to main steam-pipes in engine-room of steam vessels, but these instructions now apply to all auxiliary steam-pipes. The examination of stern shafts is strictly attended to, and in my recent visits to Surveyors all over New Zealand I have particularly impressed upon them to exercise due care in their surveys of ships in all parts. The ships are getting of bigger tonnage every successive year, and in consequence surveys take a much longer time for each vessel than in former years.

From time to time surprise visits have been made to have a look at equipments and vessels generally, but very little out of order has been discovered to complain of. Special requests were made by shipowners for increased passenger-accommodation to cope with the demand for berths by visitors desirous of visiting the Exhibition at Christchurch. A number of steamers had extra accomodation fitted, and several daylight trips were made. The whole of the fittings, ventilation, lighting, &c., of the new passenger quarters, and the equipments, were supervised by the officers of this Department at all hours to assist shipowners. All these steamers carried their extra passengers without mishap.

The total number of surveys of steamers and auxiliary-powered vessels was 331.

Return No. 15 gives the total number of steamers and oil-engined vessels surveyed by the Surveyors of this Department during the year, and also gives their names, registered tonnage, nominal horse-power, indicated horse-power, and the brake horse-power of oil-engined vessels; also the nature of their machinery and propeller.

The fees received for these surveys amount to £1,849 10s.

SURVEYS OF VESSELS FOR SEAWORTHINESS.

A large increase to the number of these surveys was made this year, there being no fewer than fifty-seven. Some of the vessels affected received extensive damage, which necessitated considerable repairs. Some of the defects were attributable to fire in holds; defects to machinery, including main steam-pipes; fracture of propeller shafts; damage from heavy weather; loss of rudder through stranding; collapse of furnaces; and collision, &c.

Return No. 17 gives full particulars of each case in detail.

^{*} Places at which examinations were held more than once during the year.

GOVERNMENT STEAMERS.

The following Government steamers have been surveyed during the year: namely, "Amokura," "Antrim," "Ben Lomond,"* "Ellen Ballance," "Hinemoa," "Janie Seddon," "Lady Roberts," "Manurere,"† "Mountaineer,"* "Tutanekai," "Tawera"; total, 11.

The Defence steamers "Janie Seddon" and "Lady Roberts" both received considerable overhauls at their surveys during the year. The s.s. "Tutanekai" had repairs made to both main and donkey boilers at this survey. The s.s. "Amokura," which vessel has now been converted into a training-ship for the colony, had a most complete overhaul. All parts of her machinery, boilers, hull, and fittings received a thorough inspection. All the main and auxiliary steam-pines were tested by and fittings received a thorough inspection. All the main and auxiliary steam-pipes were tested by hydraulic pressure, and were repaired where required. This vessel's principal dimensions are: Length, 165 ft.; breadth, 31 ft; depth, 20 ft. 4 in. She was built in 1889 by Messrs. Scott and Co., ship-builders and engineers, Greenock, and is of 800.5 tons displacement. Her machinery is of the tripleexpansion type, with cylinders of 20 in., 30 in., 45 in. diameter, and a stroke of 2 ft. There are two main boilers, carrying a pressure of 145 lb. The indicated horse-power with natural draught is 720, and with forced draught 1,200. The vessel is of the composite construction.

ADDITIONAL STEAMERS AND VESSELS SURVEYED FOR THE FIRST TIME.

The following additions to steam-vessels and to vessels fitted with auxiliary power have been made The following additions to steam-vessels and to vessels fitted with auxiliary power have been made during the year. These vessels have all been surveyed for the first time this year, and are thirty-six in number. The names of these steamers and vessels are: "Amokura," "Antelope," Arahura," "Ariel," "Atoni," "Atua," "Baroona," "Bonnie Jean," "Bravo," "Britannia," "Gobar," "Colleen," "Dredge No. 350," "Endeavour," "Ferro," "Gannet," "Heather Bell," "Kaituna," "Karitane," "Kereru," "Koi," "Loyalty," "Maheno," "Ngatiawa," "Rakiura," "Rosetta," "Rothesay," "Ruahine," "Ruruhau," "Swan," "Tahawai," "Tere," "Tuhara," "Te Waipounamu," "Wootton," "Never Despair."

The sailing-vessels surveyed for the first time were the "Hazel Craig" (ship), "Wai-iti" (barque), "Vsahel" (ship)

"Ysabel" (ship).

Amongst the finest of the steamers are the s.s. "Maheno," the s.s. "Arahura," and the s.s. "Ngatiawa." The former two belong to the Union Steamship Company, and the latter to the Northern Steamship Company.

SAILING-SHIPS.

There were fifteen intercolonial sailing-vessels surveyed during the year. Considerable repairs were effected to some of them, including hull-repairs and renewals to spars, &c.

Return No. 16 gives full particulars of these. The total fees received for these surveys amount

Return No. 19 is a supplement to Return No. 19 of the last annual report, as it shows this year's additional boilers, and the class of certificated drivers required to be in charge of them; also, the changes of ownership that have occurred in the boilers during the year, and the amended sizes of cylinders as now measured, together with the horse-power of these boilers.

RETURNS.

The details of the several returns accompanying this report, and numbered 1 to 19 inclusive,

1. Number and class of boilers inspected, and fees payable on these; the machinery inspected, and the fees payable thereon; and the classes and numbers of engine-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, 8, 9, 10, 11, 12, and 13. Names of all persons to whom land stationary, winding, locomotive, and traction certificates of competency and service have been granted during the year.
- 14. List of persons who were examined and passed for marine engineers' certificates of service and competency.

15. Return of steamers and oil-engined vessels surveyed during the year.

16. Return of sailing-vessels surveyed during the year.

17. Return of vessels surveyed for seaworthiness, &c., during the year.

- 18. Return showing sums earned or received and amount spent during the financial year for inspection of machinery, examination of engineers and engine-drivers, and survey of steamers and
- sailing-vessels.

 19. Return showing the names of additional boilers and transfers which require to be in charge of certificated drivers. I have, &c.,

ROBERT DUNCAN,

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

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

^{*} Plying on Lake Wakatipu. † Plying on Lake Manapouri. ‡ Plying on Lake Anau. § Oil-engined vessels.

RETURNS.

No. 1.

(a.) RETURN showing the NUMBER of LAND BOILERS and MACHINERY for which CERTIFICATES were issued during the Financial Year ended 31st March, 1907.

Stationary-Five-horse power and under, 1,390; 10-horse power and over 5-horse power, 822; over 10-horse power, 1,507: total, 3,719.
Portable— Five-horse power and under, 148; 10-horse power and over 5-horse power, 1,145:

over 10-horse power, 367: total, 1,660.

Total boilers, 5,379.

Machinery.

Hydraulic lifts, 178; gas-lifts, 17; electric lifts, 76; steam-lifts, 25; water-lifts, 1; gas and hydraulic hoists and electric motors, 320; water engines, motors, and water-wheels, 407; Peltons, 89; turbines, 87; gas-engines, 861; oil-engines, 573; steam machinery, 763: total machinery, 3,397.

Grand total, 8,776.

(b.) RETURN showing the FEES PAYABLE for the Inspection of Boilers and Machinery, and for the Issue of Engine-drivers' Certificates during the Financial Year ended the 31st March, 1907.

Fees payable—On boilers, £6,338; on machinery, £369 2s. 6d.; for engine-drivers' certificates issued, £494 10s.: total, £7,201 12s. 6d. Government boilers and lifts inspected, but not charged, represent the further sum of £123 7s. 6d.

The cash actually received for boilers and machinery and paid into the Public Account amounted to £6,802 14s. 10d. The difference is caused by boiler-owners paying late fees. The cash actually received and paid into the Public Account for engine-drivers' application fees amounted to £651 2s. 6d. for the financial year ended the 31st March, 1907. This amount includes fees for certificates not yet issued.

(c.) RETURN showing the Number of Service and Competency Certificates issued to Winding and Traction and Locomotive Engine Drivers and to Steam Stationary-Engine Drivers, during the Financial Year ended the 31st March, 1907.

Steam winding: Service 2, fees 10s.; competency 20, fees £10: total fees £10 10s.

Traction and locomotive: Competency 178, fees £89; total fees, £89.

Steam stationary: Service—First-class 6, fees £1 10s. Competency—Extra first-class 8, fees £8; first-class 200, fees £200; second-class 371, fees £185 10s.: total fees, £395.

Summary of certificates issued: Service—Winding, 2; stationary, 6: total 8, fees (service), £2. Competency—Winding, 20; traction and locomotive, 178; stationary, 579; fees, £492 10s.
Total: Winding certificates, 22; fees, £10 10s. Traction and locomotive certificates, 178; fees, £89. Stationary certificates, 579; fees, £395. Total certificates, 785; total fees, £494 10s.

No. 2.—Return of Defects found on Inspection of Boilers during the Financial Year ended the 31st March, 1907.

| Description of Def | Dangerous. | Defective in Lesser Degree. | Total. | | | |
|-----------------------------------|------------------|--------------------------------|---------|----------|-----|-----|
| | | | | | | |
| A number of rivets in shell bad | | ••• | | ••• | 27 | 27 |
| A number of screwed stays in fire | box wa | sted | | 4 | 60 | 64 |
| A number of screwed stays in fire | | | | 1 | *** | 1 |
| All screwed stays in firebox bad | | ••• | | 6 | ••• | 6 |
| Back end of furnace wasted | | ••• | | | 1 | 1 |
| Back tube-plates bulged | | ••• | • • • | ••• | 1 | 1 |
| Back tube-plate cracked | | | | | 1 | 1 |
| Badly pitted inside shell | | ••• | | | . 9 | 9 |
| | | | | 3 | 97 | 100 |
| Bottom of firebox thin | | ••• | ••• | | 1 | 1 |
| Bottom of shell grooved inside at | circum | ferential se | ams | ••• | 1 | 1 |
| Bottom of shell thin | | | | 2 | 5 | 7 |
| Brickwork setting defective | | ••• | | | 35 | 35 |
| Bulged under bottom of shell | | ••• | | 2 | 15 | 17 |
| Circumferential seams wasted | | ••• | • • • • | ••• | 4 | 4 |
| Compensating-rings round manho | le-d o or | s wasted | | ••• | 3 | 3. |
| Corroded internally | | ••• | | ••• | 17 | 17. |

No. 2.—RETURN of DEFECTS—continued.

| Description of Defeot | | Dangerous. | Defective in Lesser Degree. | Total. | | |
|--|------------|------------|--------------------------------|-------------------|-----------------|--|
| Coupling-pins in longitudinal stays b | na d | | | | 3 | 3. |
| Cracked at bottom of shell | Jan I | ••• | | ••• | 1 | 1 |
| O - I - I I former a local | • | • • • | ••• | ••• | 1 | 1 |
| Cracked round furnace-door Cracked slightly at a number of rivet | | • • • | ···· | ••• | 8 | 8 |
| Charles I aliabela in Gualery | | • • • | | *** | 5 | 5 |
| Control in the beat and what | | ••• | | •• | 1 | 1 |
| Character to be a superior of | | • • • • | ••• | ••• | 1 | $\frac{1}{1}$ |
| Clarate to be a ship | | • • • | • • • • | ••• | 4 | 4 |
| Our man of heatless maked | | • • • • | | 1 | 13 | 14 |
| Crown of boller wasted Crown of firebox laminated | | | •••] | | 1 | 1 |
| Crown of firebox slightly bulged | | | | | 16 | 16 |
| Crown of firebox badly bulged | | | | $\frac{\dots}{2}$ | 2 | 4 |
| Crown of firebox corroded | | | | 3 | 8 | 11 |
| Crown of steam-dome wasted | | | | | $\tilde{2}$ | 2 |
| Crown-stays defective and firebox co | | | | 1 | | $ar{1}$ |
| Defective dogs on mudhole-doors | | | | | 2 | $\frac{1}{2}$ |
| Defective dogs on manhole-doors | | | | ••• | 1 | $ar{1}$ |
| Defective furnaces | | | | 1 | $\frac{1}{4}$ | 5 |
| Eighteen screwed stays bad | | | | | i | 1 |
| Eighteen stay-nuts in firebox bad | | | | | 1 1 | i |
| Eighty-three screwed stays bad | | | | 1 | - | 1 |
| Eleven screwed stays bad | | | | * | i | |
| End plate badly grooved | | | | ••• | 1. | $\overline{1}$ |
| End of steam-dome wasted | | | • • • • | • • | 1 1 | 1 1 |
| Fifteen tubes bad | | | ••• | | ī | ī |
| Firebox-crown wasted at landings | | | | | i | i |
| Fireboxes general waste | | | ••• | 5 | $1\overline{2}$ | 17 |
| Fireboxes general waste Firebox-sides bulged | | | [| _ | 8 | 8 |
| Five stay-nuts in firebox bad | | ••• | ••• | ••• | ĭ | 1 |
| Five tubes bad | | ••• | | ••• | $\frac{1}{2}$ | $\frac{1}{2}$ |
| Foundations defective | | • , | | . ••• | ī | 1 |
| Foundation-rings round bottom of fir | | fective | } | ••• | 13 | 13 |
| Four screwed stays bad | | 1000110 | | ••• | 2 | 2 |
| Four tubes bad | | ••• | | ••• | $\frac{1}{2}$ | $	ilde{f 2}$ |
| Fourteen tubes bad | | | | ••• | ī | $ar{1}$ |
| Furnaces bad | | | | 2 | | $ar{2}$ |
| Furnaces bulged | | | | | 10 | 10 |
| Furnace-bottoms wasted | | | | | 6 | 6 |
| Furnace-crowns wasted | | • • • | | | 12 | 12 |
| Furnace grooved under bottom at sea | | | | ••• | 1 | 1 |
| Furnace grooved on top | | | | ••• | 1 1 | $ar{1}$ |
| Furnaces thin | | | [| | 3 | 3 |
| Galloway tubes defective | | | | | 2 | $\overline{2}$ |
| General deterioration (pressure reduc | | | | | 214 | $2\overline{14}$ |
| Girder-stays defective | | | | | 3 | 3 |
| Girders on firebox-crown wasted | | | | | 4 | $\overset{\smile}{4}$ |
| Grooved at bottom of firebox | | | | | i | $ar{1}$ |
| Grooved at bottom of shell | | ••• | | ••• | 4 | $\hat{4}$ |
| Grooved on crown of boiler | | | | ••• | $\hat{2}$ | $\hat{2}$ |
| Grooved on crown of furnace | | ••• | | • • • | $\bar{1}$ | $ar{1}$ |
| Grooved at end of furnace | | | | | 2 | $ar{f 2}$ |
| Grooved at front end | | | | ••• | $\frac{1}{2}$ | $oldsymbol{ar{2}}$ |
| Grooved at landings | | | ::: | | 2 | $oldsymbol{ar{2}}$ |
| Grooved at longitudinal seams | | | | | 1 | $ \cdot ^{2}$ and $ar{f{1}}$ and $ \cdot ^{2}$ |
| Grooved round steam-drum | | | | | ı î | |
| Grooved round uptake and vertical s | | | | *** | ī | $ar{1}$ |
| Gusset-stays defective | | ••• | | ••• | 1 | \mathbf{i} |
| Handhole door-openings wasted | | | | | 2 | $\overline{2}$ |
| Laminated on front end plate | | | | ••• | 1 | ī |
| Laminated plate in bottom of shell | | ••• | | | 3 | 3 |
| Laminated plate in furnace | • • · · | | | ••• | 5 | 5 |
| Leaky stay-nuts at back end of boile | ar | *** | ••• | ••• | 1 | 1 1 |
| Longitudinal seams wasted | | | ••• | ••• | i | 1 |
| Longitudinal stays wasted | | ••• | • • • | ••• | 19 | 19 |
| Longitudinal stays wasted Longitudinal stays broken | | ••• | • • • • | ï | | 19 |
| 34 3 1 3 L-3 | • • | ••• | • • • | | 10 | 10 |
| 35 1 1 - 1 | | ••• |] | • • • | 10 | 10 |
| | | ••• | ••• } | ••• | 2 | 2 |
| Manhole-door spigots defective | • • | • • • | • • • • | • • • | | ' 4 |

No. 2.—RETURN of DEFECTS—continued.

8:

| Descript | tion of Def | ects. | | | Dangero | us. | Defective in Lesser Degree. | Total. |
|---|--------------|-----------|-----------|---------|---|-----|-------------------------------------|--------------------|
| Ianhole-door studs bad | | | | | | | 2 | 2 |
| Aud-drums corroded | | | | | | | 5 | 5 |
| Iudhole-doors bad | | | | | | - | 30 | 30 |
| Iudhole-door studs bad | ••• | | | | | ł | 34 | 34 |
| Iudhole screwed plugs ba | ıd | | • • • | | ••• | | 13 | 13 |
| Vine tubes bad | ••• | ••• | ••• | | | | 1 | 1 |
| ne stay-tube bad | | | ••• | • • • • | , | | 3 | 3 |
| one tube bad | | • • • | • • • | | • • • | | 6 | 6 |
| Palm-stays defective | ••• | • • • | ••• | ••• | • • • | ļ | 1 | $\frac{1}{16}$ |
| Patches defective | had | • • • | ••• | • • • • | ••• | | 16 1 | 16 1 |
| Pins in longitudinal stays Pitting slightly | Dau | ••• | • • • • | ••• | *** | . | 9 | 9 |
| Plate wasted at front end | | ••• | ••• | | ••• | | 1 | 1 |
| Rivets in manhole-doors | | | ••• | | ••• | - 1 | . 6 | 6 |
| Seams wasted | | | | | | ļ | 4 | 4 |
| Seven tubes bad | ••• | ••• | | | | | 1 | 1 |
| Seventeen tubes bad | | ••• | ••• | | ••• | | ī | ī |
| Seventy screwed stays ba | _ | | | | 1 | | | $ar{f 1}$ |
| Several tubes bad | ••• | | | | | 1 | 2 | 2 |
| shell wasted around skirt | | ••• | ••• | | | 1 | 10 | 10 |
| Shell wasted at bottom in | | | | | ••• | | 6 | 6 |
| shell wasted at bottom ci | | ntial sea | ms | | ••• | ļ | 3 | 3 |
| shell wasted at crown of | | | ••• | | • • • | | 3 | 3 |
| Shell wasted at the ends | | | * * * | • • • | • • • | | 3 | 3 |
| Shell wasted at the landing | ngs | ••• | • • • | • • • | • • • | | 1 | 1 |
| Shell wasted at mudhole- | | | *** | ••• | ••• | | 69 | 69 |
| Shell wasted at water-line Shell wasted in line with | | k | ••• | •••• | ••• | | 4. 1 | 4 |
| Shell wasted round moun | | I. | ••• | ••• | • • • | | 4 5 | 4 5 |
| Shell wasted where blow- | | iointed | on boiler | | | | 8 | 8 8 |
| Shell wasted where feed-r | | | | • • • • | ••• | | 3 | 3 |
| Shell wasted where safety | | | | | ••• | | 5 | 5 |
| shell wasted under check | | | | | ••• | | 3 | ď |
| Shell wasted under main | | | | | ••• | - ! | 1 | 1 |
| ides of firebox bulged | | | | | 1 | | 4 | 5 |
| Sides of firebox thin | | | | | 2 | į | 3 | 5 |
| Six tubes bad | • • • | | | | | | 1 | 1 . |
| Slight cracks in flues | | ··· | • • • | | | | 2 | 2 |
| Sling-stays wasted on cro | wn of fire | ebox | ••• | | ••• | | 2 | 2 |
| Steam-dome wasted | • • • | | | | **** | . | 1 | 1 |
| Steam-drum wasted | 403 | • • • • | | •••• | ••• | | 1 | 1 |
| Stays in steam-dome was | υ e α | • • • | ••• | ••• | • • • | | 1 | 1 |
| Chirteen tubes bad Chirty-one tubes bad | ••• | • • • | • • • | • • | ••• | ļ | $egin{array}{c} 1 \\ 1 \end{array}$ | 1 |
| Three tubes bad | ••• | | ••• | | | . | 7 | $\frac{1}{7}$ |
| Chroat-plate stays wasted | l | | ••• | ••• | ••• | | 1 | 1 |
| Throat-plates thin | - | | | | ••• | | 3 | 3 |
| op tube-plates cracked | | | | | 2 | | 2 | 4 |
| Tubes bad | •• | • • • | • • • • | | 10 | | 104 | $11\overset{7}{4}$ |
| Tube-ends leaking | ••• | | | | | | 14 | 14 |
| Tube plates bad | ••• | | | • | 10 | j | 14 | $\overline{24}$ |
| Cube-plates bulged | • • • | | | | | | 5 | 5 |
| ube plates wasted | | ••• | ••• | | ••• | | 39 | . 39 |
| wo hundred and twenty box ends | screwed | stays w | asted at | fire- | ••• | | 1 | 1 |
| 'wo stay-tubes bad | ••• | ••• | • • • | | • | | 1 | 1 |
| wo tubes bad | • • • | • • • | | | ••• | ! | 9. | 9 |
| welve tubes bad | | • • • | • • • | | | . | 2 | 2 |
| Jptakes wasted | ••• | | ••• | | 6 | | 20 | 26 |
| Vertical stays wasted | • • • | ••• | ••• | | • • • • | | 6 | 6 |
| Wasted at furnace-door | ••• | • • • | * * * | | • • • • | | \tilde{e} | ϵ |
| Wasted at line of firebars | | fugible - | oluc Gee- | a | * • • | . | 5 | 5 |
| Vasted on crown of fireb | ov wifete | rastote I | brad unge | a | ••• | | . • 8 | 8 |
| Totals | | | | - | 67 | | 1,255 | 1,322 |

DIGESTERS found to be defective on Inspection during Financial Year ended the 31st March, 1907.

| Description of | of Defects. | Dangerous. | Defective n Lesser Degree. | Total. | | |
|--|--------------|------------|-------------------------------|--------|----------------|----------------|
| A number of rivets bad | | | | .,, | 8 | 8 |
| All rivets in circumferential a end bad | nd longitud | inal sean | rs, top | 4 | ••• | 4 |
| Bolts in doors defective | ••• | | ••• | ••• | 5 | 5 |
| Bolts in mouthpiece wasted | ••• | | | | 2 | 2 |
| Circumferential seams wasted | | | | ••• | 3 | 3 |
| Door defective | | | | 1 | | 1 |
| Eighty-seven bad rivets | ••• | | | | 1 | 1 |
| Fifty defective rivets | | | | | 1 | 1 |
| Forty defective rivets | | | | | 1 | 1 |
| Frame of bottom door, joint d | efective | | | | 1 | 1 |
| General deterioration (pressur | | | } | | 5 | 5 |
| Landings wasted | | | | | 4 | 4 |
| Ninety rivets defective | | | (| | 1 | 1 |
| One hundred rivets defective | | | | | 1 | 1 |
| One hundred and fifty rivets h | | | | 2 | | 2 |
| Pins in longitudinal stays was | | | | | 1 | 1 |
| Several rivets bad | | | | | 3 | 3 |
| Top door defective | - | ••• | | | 1 | 1 |
| Twenty defective rivets | | | | ••• | $\overline{1}$ | $\overline{1}$ |
| Vertical stays wasted | ••• | ••• | | ••• | $\overline{2}$ | 2 |
| • | | | }. | | | |
| Totals | ••• | ••• | | 7 | 41 | 48 |

DEFECTIVE FITTINGS found on Inspection of Boilers for which Notice was given to renew or repair during Financial Year ended the 31st March, 1907

- 1 Bend of main steam-pipe bad: has been ${f renewed}.$
- 16 Blow-off cocks bad: have been renewed.
- 10 Blow-off cocks defective: have been repaired.
- 1 Blow-off cock fitted with new bolts.
- 5 Blow-off cocks rejointed, and new studs fitted in boiler. 5 Blow-off pipes bad: have been renewed.
- 1 Bracket-bolts, brake-nut, and steering-gear worm of traction-engine renewed.
- 1 Cog-wheel of brick-machine loose: was made secure.
- Crank-pin of engine defective: was renewed.
- 1 Crank-shaft saddle on boiler rejointed.
- 2 Crank-shafts fractured: have been renewed.
- Cylinder cracked: was repaired.
 Cylinder drain-cocks broken: new ones fitted.
- Digester door bad: new one fitted. 2 Feed check-valve chests and valves bad:
- were renewed. 1 Feed check-valve chest rejointed and new studs fitted.
- 1 Feed-pump defective: has been repaired.
- Feed check-valve chest bad: was renewed.
- 8 Feed-pipes defective: have been renewed.
- 60 Ferrules fitted under spring-balance levers.
- 1 Flange of blow-off cock defective: was renewed.
- 1 Fly-wheel defective: was repaired.
- Fly-wheel of engine cracked: new one fitted.
- 1 Fly-wheel bracket on boiler loose: was made
- Friction-wheel defective: has been renewed.
- 20 Fusible plugs defective: have been renewed.
- 1 Girder for hanging boiler fitted.
- Governor out of order: made workable.
- Injector out of order: made workable.
- 2 Internal feed-pipes defective: have been repaired.

 2 Main steam-pipes bad: have been renewed.
- Main steam-pipe defective: was repaired.
- 4 Main steam pipes requiring supports: hangers fitted.
- 10 Manhole-doors bad: have been renewed.
- Manhole-door dog bad: has been renewed. 2 Manhole-door studs bad: were renewed.
- 30 Mudhole-doors bad: have been renewed.
- Mudhole-door studs bad: have been renewed.
- 1 New bolts fitted to blow-off cocks.

- 1 New bolts fitted to steam-pipe joint.
- 1 New feather fitted in stearing-gear worm for traction-engine.
- New handles fitted to water-gauge cocks.
- New jaw for safety-valve lever fitted.
- 1 New nipple fitted to check-valve chest.
- 1 New nut and screw fitted to brake for traction-engine.
- New seat fitted in stop-valve chest.
- New stud fitted to end of blow-off cock.
- Pipes for blow-off cocks bad: have been renewed.
- Safety-valves bad: have been renewed.
 - Safety-valves defective: were repaired.
 - Safety-valves rejointed and adjusted.
- Safety-valve seat defective: was renewed.
- Safety-valve chests, joints leaking: were re-
- 10 Spring-balances bad : have been renewed.
- Spring-balance defective: was repaired.
- 61 Steam-pressure gauges bad: have been re-
- 2 Steam-pressure gauge-pipes bad: were renewed.
- 3 Steam and water gauge fittings defective: were repaired.
- 3 Steering-gear for traction-engines defective: was put in working-order.
- 1 Spoke of fly-wheel cracked, clamp fitted to it.
- 5 Springs for safety-valve wasted: have been renewed.
- Stop-valve defective: has been repaired.
- 1 Stop-valve refaced.
- 1 Stop-valve joint defective: has been remade.
- 1 Stop-valve bad: has been renewed.
- Stop-valve gland fitted with new bolts.
- Stud in blow-off cock joint bad: was re-
- Syphons for pressure-gauges, renewed. Tapered mud-plugs defective: have been 13 renewed.
- Test-cocks defective: have been repaired.
- Test-cocks bad: have been renewed.
- Throttle-valve defective: was repaired.
- Washer and stud bottom of blow-off cock renewed.
- 53 Water gauge mountings defective: have been repaired.
- 35 Water-gauge mountings bad: were renewed.

No. 3.—Return of Notices given to REPAIR BOILERS, during the Financial Year ended the 31st March, 1907.

| Number. | Туре. | Description of Repairs. |
|--|---|---|
| 5 | Cornish | Brickwork repaired. |
| 4 | " | Defective plates on furnace-crowns cut out, and new crowns fitted. |
| 2 | ,, | Furnaces patched where wasted. |
| 1 | " | Luminated plate on front of boiler patched. |
| 1 | " | Patch fitted on crown of boiler round steam-dome. Patch fitted on shell of boiler under blow-off cock. |
| $rac{2}{3}$ | " | Datch fixed an shall under mountings |
| 1 | " | Strengthening plates riveted over grooves in the ends of furnaces. |
| $\overline{1}$ | <u>"</u> | Two rivets renewed in flange of furnace. |
| 1 | Cornish tubular | Brickwork repaired. |
| 1 | " | Leaky stay-nuts rejointed. |
| 1 | " | Six new tubes fitted. |
| $egin{array}{c} 1 \ 1 \end{array}$ | " | Strengthening-rings fitted to furnace Threads renewed on three mudhole-door studs, and new nuts fitted. |
| 1 | " | Three stay-rods put in tube-plate where cracked. |
| 1 | Dryback marine | |
| $\overline{1}$ | " | Dog fitted over bulge in back tube-plate. |
| 1 | " | Furnace crown repaired. |
| 1 | " | Furnace strengthened by twelve screwed stays. |
| 1 | " | New crown fitted in steam dome. |
| 1 | T an anghina | Strengthening rings fitted round furnaces Cracks in furnace-chain pinned. |
| $\frac{1}{1}$ | Lancashire | Defective portion of shell at bottom and front end cut out and |
| . 1 | " | renewed. |
| 1 | ,, | Furnaces repaired. |
| 1 | ,, | Strengthening rings fitted round furnaces. |
| 1 | Locomotive | Compensating-ring fitted round manhole-opening. |
| 1 | " | Compensating-ring fitted round mudhole-openings. |
| 2 | " | Doubling-plates fitted over tapered plugholes in back end Eighteen new nuts fitted on firebox-stays. |
| 1 1 | " | Eighty-three new screwed stays fitted in firebox, new girder-stays |
| 7 | " | and patches fitted at the corners of foundation-ring. |
| 1 | ,, | Five new nuts fitted on firebox-stays. |
| 1 | " | Fourteen new screwed stays, and patch fitted at the bottom of from |
| | | tube-plate. |
| 1 | " | Front tube-plate patched, and seventeen new tubes fitted. |
| 5 | " | Mudholes retapped, and new tapered plugs fitted New crown fitted to firebox. |
| 1 1 | " | Now front tube plate fitted |
| $\frac{1}{2}$ | " | New firebox and all new screwed stays. |
| ī | " | New stud in mudhole-door. |
| $\bar{1}$ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | One new stay-tube fitted. |
| 1 | " | Patch fitted in firebox. |
| 1 | " | Patch fitted on each side of firebox. |
| . 1 | ,, . | Patch fitted on bottom of shell Patch fitted on right-hand side of firebox. |
| 1 1 | " | Datch fitted on tube plate and three new scrawed stays |
| 1 | " | Patch fitted on throat-plate. |
| . 1 | " | Patch fitted under fire-door. |
| 4 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Retubed. |
| 1 | " | Retubed, and defective patch renewed. |
| 1 | " | Retubed, and new tube-plate fitted. |
| 1 | " | Side sheets and tube-plate patched. |
| 1 | " | Six new screw-stays fitted in firebox Sling-stays fitted between girder-stays. |
| $\frac{1}{1}$ | " | Three new covered stave fitted in firehox |
| 1 | " | Three new screwed stays fitted in firebox Twelve new screwed stays fitted in firebox. |
| 1 | " " | Two bad places cut out of firebox, and patches fitted. |
| $\bar{1}$ | ,, | Two new screwed stays fitted in firebox. |
| 1 | " | Two new sight-holes cut, and tapered plugs fitted. |
| 1 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 220 new screwed stays fitted in firebox. |
| 1 | Manure-dryer | Three rows of screwed stays fitted in bottom of shell where thin. |
| $\begin{array}{c} 1 \\ 27 \end{array}$ | Marine Multitubular | New stay-tube fitted Brickwork repaired. |
| $\frac{27}{2}$ | | Bulge cut out of bottom and patch riveted on. |
| 1 | " | Bulge in tube-plate heated and drawn back. |
| 10 | " | Compensating-rings fitted round mudhole-openings. |
| | 1 | Cracked plate cut out of bottom of shell, and patch fitted. |

No. 3.—RETURN of Notices given to REPAIR BOILERS—continued.

| Number. | Type. | | Description of Repairs. | | | | | | |
|---|---|---|--|--|--|--|--|--|--|
| 2 | Multitubular | | Crown-plate of steam-dome renewed. | | | | | | |
| 1 | " | ••• | Defective plate cut out of bottom at front end, new plate fitted also retubed. | | | | | | |
| 1 | ,, | | Defective patch taken off and a larger one fitted. | | | | | | |
| 1 | " | | Defective rivets in circumferential seams renewed. | | | | | | |
| 2 | " | | Five new rivets put in manhole-door. | | | | | | |
| 1 | " | | Five new tubes fitted. | | | | | | |
| $\begin{array}{c c} 1 \\ 1 \end{array}$ | " | ••• | Gusset-stay reriveted. Laminated plate in bottom of shell cut out and patch riveted on. | | | | | | |
| $\frac{1}{2}$ | " | | Manhole-doors repaired. | | | | | | |
| $\tilde{1}$ | " | | Manhole-door spigot reriveted. | | | | | | |
| 1 | " ! | | Manhole-door dog repaired. | | | | | | |
| 1 | " | | Manhole-opening and mudhole-opening fitted with compensating rings. | | | | | | |
| 3 | " | | Mudhole-doors repaired. | | | | | | |
| 2 | " | • • • | New bottom plate fitted in shell. | | | | | | |
| 1 | " | ••• | New dog fitted to manhole-door. | | | | | | |
| 6 14 | " | ••• | New manhole-doors. New mudhole-doors. | | | | | | |
| 2 | " | | New spigots fitted to manhole-doors. | | | | | | |
| $\overline{2}$ | " | | New studs fitted in mudhole-doors. | | | | | | |
| 1 | ,, | | One new rivet in manhole compensating-ring, and two new bolt | | | | | | |
| | | | in supporting-bracket. | | | | | | |
| $\frac{1}{2}$ | " | ••• | One new stay-tube. | | | | | | |
| 3 | " | | One new tube. Retail fitted on bottom of front tube plate and shall | | | | | | |
| 1 4 | " | ••• | Patch fitted on bottom of front tube-plate and shell. Patch fitted on shell under mountings. | | | | | | |
| 1 | , , , , , , , , , , , , , , , , , , , | | Patch fitted on shell under check-valve. | | | | | | |
| $\overline{2}$ | " | | Plate cut out of bottom and new plate fitted. | | | | | | |
| 15 | " | | Retubed. | | | | | | |
| 1 | " | | Retubed, and new tube-plate fitted. | | | | | | |
| $\frac{2}{1}$ | " | • • • | Retubed, and one new longitudinal stay fitted. | | | | | | |
| 1 1 | " | • • • | Retubed, and patch fitted on front end of shell. Retubed, and six new rivets put in shell. | | | | | | |
| 1 | " | | Several new tubes fitted, and new mud-door. | | | | | | |
| î | . " | | Six new rivets in manhole-door. | | | | | | |
| 1 | " | ••• | Three patches fitted on bottom of shell. | | | | | | |
| 1 | " | • • • | Twelve new tubes, and two new longitudinal stays fitted. | | | | | | |
| $\frac{2}{1}$ | " | ••• | Two new tubes. | | | | | | |
| $egin{array}{c} 1 \\ 1 \end{array}$ | " | ••• | Two patches fitted on end of shell. Two patches fitted on bottom of shell. | | | | | | |
| 5 | Portable | | A number of new screwed stays fitted in firebox. | | | | | | |
| 1 | " | • | About 160 new screwed stays fitted in firebox, and two comper | | | | | | |
| | | | sating-rings fitted to mudhole-openings. | | | | | | |
| 1 | , ,, | ••• | All screwed stays in firebox renewed. | | | | | | |
| 1 | " | ••• | Bulge cut out of firebox and patch fitted. | | | | | | |
| 1 | " | ••• | Compensating-rings fitted round fire-door, and round three mudhole openings. | | | | | | |
| 30 | | | Compensating-rings fitted to mudhole-openings. | | | | | | |
| 1 | " . | ••• | Compensating-ring fitted to mudhole-openings, and two new stud | | | | | | |
| | | | in mud-doors. | | | | | | |
| 1 | " | ••• | Corner of firebox patched, and patch fitted under blow-off cock. | | | | | | |
| 1 | " | • • • • | Eighteen new screwed stays in firebox. | | | | | | |
| 1 1 | " | ••• | Eleven new screwed stays in firebox. Fifteen new tubes fitted. | | | | | | |
| $\frac{1}{2}$ | " | | Five new screwed stays in firebox. | | | | | | |
| ĩ | " | | Five new stay-tubes fitted. | | | | | | |
| $\overline{1}$ | " | | Five new tubes fitted. | | | | | | |
| 1 | ,, | | Forty-three new screwed stays in firebox. | | | | | | |
| 1 | " | | Four new longitudinal stays fitted. | | | | | | |
| 1 | " | ••• | Four new mud-doors fitted. | | | | | | |
| $rac{2}{1}$ | " | ••• | Four new tubes. Four new tubes, and patch fitted at foundation-ring. | | | | | | |
| 1 | " | | Front tube-plate patched. | | | | | | |
| | " | | Manhole-openings fitted with compensating-rings. | | | | | | |
| 2 | 1 0 | | | | | | | | |
| 1 | " | | | | | | | | |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | Mudhole compensated, new mud-door, patch fitted to front tub- plate, and two new screwed stays in firebox. New crowns fitted to firebox. | | | | | | |

No. 3.—RETURN OF NOTICES given to REPAIR BOILERS—continued.

| Type. | | | Type. Description of Repairs. | | | | | | |
|----------------|---|---------|---|--|--|--|--|--|--|
| 1 | Portable | | New dog fitted to mudhole-door. | | | | | | |
| 1 | ,, | | New girder-stays fitted. | | | | | | |
| 1 | ,, | | New girders fitted to firebox-crown, retubed, front tube-plat | | | | | | |
| | | | patched, and a number of new screwed stays in firebox. | | | | | | |
| 1 | " | | New manhole-door. | | | | | | |
| 2 | " | ••• | New mudhole-doors. | | | | | | |
| 3 | " | ••• | New stude and nuts fitted to front mudhole-doors. | | | | | | |
| $\frac{3}{1}$ | . " | ••• | New studs mudhole-doors. One mudhole compensated, and three new mudhole-doors fitted. | | | | | | |
| 1 | " | | One new longitudinal stay. | | | | | | |
| $\overline{2}$ | " | | One new screwed stay in firebox. | | | | | | |
| $\overline{1}$ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | One new screwed stay, and new stud in front mud-door. | | | | | | |
| 1 | " ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' | | One new screwed stay, and one new mudhole-door. | | | | | | |
| 1 | " | | One new sling-stay fitted to crown of firebox. | | | | | | |
| 1 | " | | One new stay-tube. | | | | | | |
| 1 | ,, . | • • • | Patch fitted on crown of firebox. | | | | | | |
| 1 | " | • • • | Patch fitted on shell, and six new screwed stays in firebox. | | | | | | |
| 1 | " | ••• | Patch fitted on shell under blow-off cock. | | | | | | |
| $\frac{2}{1}$ | " | • • • | Patch fitted in firebox. | | | | | | |
| 1 | " | • • • | Patch fitted in firebox, and mudhole-openings compensated. Patch fitted round skirting of firebox. | | | | | | |
| 3 | " | | Patch fitted to foundation-ring. | | | | | | |
| 1 | " | | Patch fitted to foundation-ring, and ring reriveted; also three ne | | | | | | |
| _ | 1 | ••• | longitudinal stays. | | | | | | |
| 1 | | | Patch on firebox tube-plate renewed, and six new screwed stays. | | | | | | |
| 4 | " | | Patches renewed in firebox. | | | | | | |
| 1 4 | " | | Retubed. | | | | | | |
| 1 | <i>"</i> | ••• | Retubed, new crown in firebox, and new girder-stays fitted. | | | | | | |
| 1 | , | • • • | Retubed, new front tube-plate, two new longitudinal stays, an | | | | | | |
| | | | three new screwed stays. | | | | | | |
| 1 | " | ••• | Retubed, new front tube-plate, and several new screwed stays. | | | | | | |
| 1 1 | " | ••• | Retubed, new girders and bolts fitted to crown of firebox. | | | | | | |
| 1 | " | ••• | Seven new screwed stays, and three new longitudinal stays fitted. Seventeen new screwed stays in firebox. | | | | | | |
| ì | | ••• | Seventy new screwed stays in firebox, and mudhole-openings com | | | | | | |
| - | " | ••• | pensated. | | | | | | |
| 1 | " | | Several new screwed stays, patches fitted to corners of firebox an | | | | | | |
| | . " | | throat-plate. | | | | | | |
| 1 | . " | • • • | Six compensating-rings fitted to mudhole-openings. | | | | | | |
| 2 | " | | Six new screwed stays in firebox. | | | | | | |
| 1 | . <i>"</i> | ••• | Six new tubes. | | | | | | |
| 1 | . <i>"</i> | ••• | Six new tubes, and two new stay-tubes. | | | | | | |
| 1 | " | ••• | Six new screwed stays, three mudhole-openings compensated, an | | | | | | |
| 1 | | | patch renewed under fire-door. Sixteen new screwed stays in firebox. | | | | | | |
| $\frac{1}{2}$ | i " | ••• | Tapered mudholes in front tube-plate retapped, and new plus | | | | | | |
| - 7 | · · · · · " | ••• | fitted. | | | | | | |
| 1 | . " | | Thirty new screwed stays in firebox. | | | | | | |
| 1 | | | Three new longitudinal stays. | | | | | | |
| 1 | ,, | | Three new longitudinal stays, two new screwed stays, and tw | | | | | | |
| | i | | mudhole-openings compensated. | | | | | | |
| 1 | " | | Thirty-six new screwed stays in firebox. | | | | | | |
| 1 | " | • • • | Three new sling-stays fitted to crown of firebox. | | | | | | |
| 1 | , " | • • • | Three new tubes. | | | | | | |
| 1 | " | • • • • | Three patches fitted in firebox. | | | | | | |
| 1 1 | " | ••• | Twelve new screwed stays in firebox. | | | | | | |
| 1 | " | ••• | Twelve new tubes. | | | | | | |
| $\frac{1}{2}$ | " " | ••• | Twelve new tubes, one new mud-door, and four new screwed stays. Twenty new screwed stays in firebox. | | | | | | |
| 1 | " | | Twenty-three new screwed stays in firebox. | | | | | | |
| ī | . " | | Twenty-three new screwed stays in firebox, and new stud in much | | | | | | |
| | | ••• | door. | | | | | | |
| 2 | , 5° | | Two new longitudinal stays, and two new tubes. | | | | | | |
| 4 | ,, | | Two new longitudinal stays. | | | | | | |
| 5 | . " | | Two new screwed stays in firebox. | | | | | | |
| 1 | ,,, | • • • | Two new screwed stays in firebox, and one new longitudinal stay. | | | | | | |
| 1 | | | Two new stays in firebox-crown, and mudhole-openings compen | | | | | | |
| | | | sated. | | | | | | |

No. 3.—RETURN of Notices given to REPAIR BOILERS—continued.

| $\frac{2}{1}$ | Portable . | |
|--|--------------------|--|
| 1 | | Two sight-holes retapped, and new tapered plugs fitted. |
| | | Upper row of screwed stays in throat-plate renewed. |
| 1 | Semi-portable . | Ferrules fitted to tube-ends. |
| 1 | | New dog fitted to mud-door. |
| 2 | ,, | New stud in front mud-door. |
| 1 | ,, , | Patch fitted in firebox, and one new screwed stay. |
| 1 | " | Several new screwed stays in firebox, two sight-holes cut and |
| 1 . | Semi-tubular . | tapered plugs fitted. Circumferential seams caulked, galloway-tube repaired, and five new longitudinal stays fitted. |
| 1 | ,, . | Furnace-crown repaired. |
| 1 | ,, . | New foundation fitted under boiler. |
| 5 | ,, , | Retubed. |
| 5 | ,, . | Retubed, and new tube-plate fitted. |
| $\frac{1}{1}$ | ,, , | Six rivets renewed in back tube-plate. |
| 1 | <i>"</i> | Three new tubes. |
| 1 | ,, . | Tubes drawn, and tube-plate cleaned. |
| 2 | | Two new corrugated furnaces fitted. |
| 1 | | All new screwed stays in firebox. |
| $egin{array}{ccc} 1 & \ 1 & \ \end{array}$ | 1 | All new screwed stays fitted in firebox. Bottom of front tube plate regiveted |
| 7 | " | Bottom of front tube-plate reriveted. Compensating-rings riveted to mudhole-openings |
| i | | Charin goang in flushor popirated |
| $\overset{1}{2}$ | | Timber another managed |
| 1 | | Forty now garaged stage in frahay |
| 1 | ; } | Tour nave governed stays in fivebox |
| 1 | | Four name garaged stays in throat plate |
| î. | | Four new tubes |
| î | | Fourteen new tubes. |
| ī | " | Laminated plate cut out of firebox-side and patch fitted. |
| 1 | " | New coupling-pins fitted in longitudinal stays. |
| 2 | , , | New crown in firebox, and new stay-tubes. |
| 1 | | New stud in mud-door. |
| 1 | ,, . | One new screwed stay, and crack in firebox-chain pinned. |
| 1 | ,, . | Patch fitted on crown of firebox. |
| 1 | ,, . | Patch fitted on shell under blow-off cock. |
| 1 | ,, . | Patch fitted on side of firebox. |
| 18 | ,, . | Retubed. |
| 1 | , . | Retubed, and compensating-ring fitted to manhole-opening. |
| 1 | <i>"</i> | Retubed, and fourteen new screwed stays in firebox. |
| $\frac{1}{2}$ | | Retubed, and new crown in firebox. |
| $\frac{2}{1}$ | <i>"</i> | Retubed, and new firebox fitted. |
| $\frac{1}{1}$ | . " | Retubed, new firebox, and new front plate fitted. |
| 1 | " | Retubed, new firebox, two new stay-tubes, one new longitudinal stay, and front tube-plate reriveted. |
| 1 | | Cover new tubes, and noteb fitted as abolt under blow off seels |
| . 2 | | Sight holog in front plate vetapped and new tapayed place fitted |
| 1 | | Ten new screwed stays in firebox, and small crack chain-pinned. |
| ī | 1 | Three new tubes. |
| ī | | Twelve new screwed stays in firebox. |
| ī | <i>"</i> | Two patches fitted over cracks, two new longitudinal stays, new |
| İ | " | handhole and door. |
| 2 | Vertical cross-tub | |
| 8 | " | Compensating-rings fitted round mudhole-openings. |
| 1 | " | Crown of firebox and cross-tube patched. |
| 1 | " | Foundation-ring round bottom of firebox repaired. |
| 4 | " | Four new vertical stays fitted between crown of boiler and crown |
| | | of firebox. |
| 1 | " | New bottom fitted to firebox, new cross-tube, and new uptake. |
| 1 | " | New cross-tube. |
| 1 | " | New stud fitted to mud-door. |
| 3 | ` " | New uptake fitted. |
| 1 | . " | New uptake fitted, and centre of boiler-crown renewed. |
| $egin{array}{c} 2 \\ 1 \end{array}$ | ." | Patch fitted on shell under check-valve. |
| | " | Patch fitted round bottom of firebox, and mudhole-openings com- |
| 1 | | nangatad |
| | | pensated. Patch fitted under safety-valve chest, and a number of new screwed. |
| 1 | | pensated. Patch fitted under safety-valve chest, and a number of new screwed stays. |

No. 3.—RETURN of Notices given to REPAIR BOILERS-continued.

| Number. | Type. | Description of Repairs. |
|----------------|---------------------|---|
| 1 | Vertical cross-tube | Patch fitted round uptake. |
| î | | Seams caulked. |
| 1 | " | Two mudhole-openings compensated, and manhole-opening com- |
| - | " | pensated. |
| 1 | | Two new mud-doors fitted. |
| 1 | , , , | Two patches fitted on crown under mountings. |
| . 1 | Vertical flue | Compensating-ring fitted to manhole-opening. |
| 2 | ,, | Compensating-ring fitted to mudhole-opening. |
| . 1 | ,, | Flange of uptake patched. |
| 1 | , | Four new vertical stays fitted, and two new rivets in manhole-door. Manhole and mudhole openings fitted with compensating-rings. |
| 1 | " | New studs in manhole and mudhole doors. |
| 1 | ,, | New uptake fitted. |
| 1 | ,, | New uptake, and four new vertical stays fitted. |
| $\frac{1}{1}$ | ,, | Patch fitted on crown of boiler under stop-valve chest. |
| 1 | " | Patches fitted round skirting and under safety-valve chest; also |
| 1 | ,, | new manhole-door fitted. |
| 1 | | Strengthening-ring fitted round firebox-door, and patch on bottom o |
| • | ,, | firebox. |
| 1 | Vertical field tube | Bottom of shell round skirting patched. |
| 1 | ,, | Crown of boiler, where thin, patched. |
| 1 | ,, | Patch fitted in firebox. |
| 1 | , " | Patch fitted on shell under blow-off cock. |
| 1 | " | Patch fitted on shell under mountings. |
| 1 | Vertical tubular | Centre stay rejointed. |
| 6 | ,, | Compensating-rings fitted round mudhole-openings. |
| 1 | ,, | |
| 4 | | feed-pump. Compensating-rings fitted round mudhole-openings, and severa |
| 1 | " | new tubes. |
| 1 | , | Crown of boiler patched. |
| $\frac{1}{1}$ | " | Toundation ring renaired |
| 1 | " | There were story trabes fitted |
| 1 | 1 " | Now anough fitted in hoiler |
| î | " | Now ated in mud door |
| $\tilde{1}$ | ,, | One new tube. |
| $\overline{1}$ | , ,, | Patches fitted round fire-door and on crown of boiler. |
| 21 | ,, | Retubed. |
| 11 | ,, | Retubed, and new top tube-plate. |
| 1 | ,, | Retubed, new top tube-plate, and two patches fitted on shell. |
| 1 | ,, | Retubed, and patch fitted on crown of boiler. |
| 1 | ,, | Retubed, and three new vertical stays fitted. Thirty-one new tubes fitted, and crown of boiler patched. |
| 1 | ,, | Three new stude fitted in mud-doors. |
| 1 | " | Man to be made matched |
| 1 | ,, | Winker fitted on enough of holler where thin and one vertical sta |
| 1 | " | between crown of boiler and crown of firebox. |
| 1 | Water-tube | Nine more tubes fitted |
| 1 | vvalor-tube | Thurs were tubed fetted |
| 1 | " | The same taken a fation as the same and the |
| | - | |
| 557 | Total. | |

No. 4.—Return of Notices given to fence or repair Dangerous Parts of Machinery, &c., during the Financial Year ended the 31st March, 1907.

| Number. | Ма | chinery. | | Particulars. |
|----------------------------|--|------------|------|--|
| 1 1 1 2 1 1 | Bacon-factory Basket-factory Blacksmith's sho Boiler-shop Bone-crushing Boot-factory | op | | Fly-wheel of engine and belting. Fly-wheel of engine. Fly-wheel and end of crank-shaft. Fly-wheel of punching-machine. Machinery. Belting. Fly-wheel of engine. Fly-wheel and belt-pulley. |

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

| Number. | Mac | hinery. | | | Particulars. |
|-----------|--------------------|---------|---------|---|---|
| 1 | Boring-mill . | | | | Walking-beam and set-screws on shaft. |
| 1 | Breast water-whee | el | | | Shafting. |
| 1 | TO 1 1 | | | | End of engine-shaft and passage at the end of |
| 1 | Drickworks . | •• | ••• | | cylinder. |
| 1 | Butchery | | | | Railing round engine. |
| | J | ••• | | - 1 | Driving-pulley. |
| 1 | Butter-factory . | •• | | •••] | Fly-wheel of engine. |
| 1 | 4 " | ••• | ••• | • • • | Driving-belt and machinery. |
| 2 | Cabinetmaking . | ••• | • • • | ••• | End of counter-shaft on ground-floor. |
| 1 | ,, | •• | ••• | • • • | Till a sheel of angine |
| 2 | | ••• | • • • | • • • | Fly-wheel of engine. |
| 1 | Cement-works . | • • • | | ••• | Machinery, belting, set-screws, shafting, and |
| | | | | | couplings. |
| 1 | Cement and lime | works | • • • | • • • | Pulley and fly-wheel of engine. |
| 2 | Chaff-cutting | • • • | | • • • | Belting. |
| 1 | ,, | | | | Clutch of engine repaired. |
| 1 | ,, | | | | End of fly-wheel and pulley-shafts. |
| 1 | | • • • | | | Fly-wheel of engine. |
| 1 | Cheese-factory | | | | Fly-wheel and belting. |
| ĩ | Clothing-factory | | | | Couplings on shafting. |
| ī | Olovanag america | | | | Fly-wheel and belting. |
| 1 | Coach-factory | ••• | | | Band saw. |
| | 1 | • • • | ••• | | Engine to fence round. |
| 1 | " | ••• | ••• | ••• | Fly-wheel of engine. |
| 2 | " | • • • | • • • | ••• | |
| 2 | | • • • | ••• | ••• | Main driving-belt. |
| 1 | Coal-mining | • • • | ••• | • • • | Broken clutch to renew on winding-engine |
| | | | | | and new wheel at poppet-head. |
| 1 | ,, | | • • • | | Railing round poppet-head. |
| 1 | ,, | ••• | | | Spur-wheels and belting. |
| 1 | Coal-screening | | | | Shafting. |
| ĩ | Coffee and spice v | | | | Belting. |
| 1 | Cordial-factory | | | | Belt-pulley and fly-wheel of engine. |
| î | | | | | Belt-pulley and spindle of Pelton wheel. |
| | " | ••• | | | Fly-wheel of engine. |
| 1 | " | ••• | ••• | | Fly-wheel and end of crank-shaft. |
| 1 . | ` I ~ | • • • | ••• | ••• | Belting and pulley. |
| 1 | Creamery | ••• | • • • • | ••• | |
| 9 | " | ••• | ••• | *** | Fly-wheel of engine. Sleeve to fit over the end of crank-shaft. |
| 3 | , , , | ••• | • • • | • • • | |
| 1 | Cycle-works | • • • | • • • | ••• | End of engine-shaft. |
| 3 | " | • • • | | | Fly-wheel of engine. |
| 1 | Dairy factory | • • • | ••• | ••• | Churns. |
| 2 | " | • • • | | | Engine and refrigerator fly-wheels. |
| 3 | " | | | | Fly-wheels of engine. |
| 1 | | | | | Fly-wheel of engine and churn. |
| $\bar{1}$ | " | | | | Pump and churn. |
| î | " | ••• | | | Turbine-wheel repaired. |
| 1 | Electric hoist | ••• | ••• | ••• | Floor-opening to fence and winch-handle |
| 1 | Meetine noise | ••• | | • | alter. |
| 4 | | | | | Main driving-belt. |
| 1 | 7731 1164 | ••• | • • • • | ••• | Belting and pulley, also rail round opening |
| 1 | Electric lift | • • • | • • • • | • • • | |
| | | | | | cellar. |
| 2 | " | | ••• | • • • • | Doors to fit to cages. |
| 1 | ,, | | | | Guide-posts and safety-gear overhauled. |
| 3 | ,, | | • • • | | New wire ropes. |
| 1 | ", | | ••• | | New wire rope and new floor to cage. |
| 3 | | | | | Safety-grips overhauled and adjusted. |
| 2 | Electric lighting | | | | Belting. |
| 1 | 1 | ••• | • | | Engine and dynamo. |
| | . " | ••• | • • • • | | Railing to fit round engine. |
| 1 | Til | ••• | ••• | • • • | |
| 1 | Electric motor | • • • | ••• | ••• | Belting. |
| 2 | " | ••• | • • • | ••• | |
| 6 | " | ••• | | • • • | |
| 1 | ,, | | | •,•• | |
| 2 | Engineers' shops | | ••• | | Fly-wheel of engine. |
| $\bar{1}$ | | | | ••• | Machinery |
| ī | Firewood-cutting | | | ••• | Politing |
| l | 1 | , | ••• | | Tile mhool of ongine |
| | " | ••• | ••• | ••• | Saw, to guard. |
| 1 | (I) | ••• | ••• | ••• | All bolting shafting and pulleys |
| 1 | Flax-mill | • • • | ••• | • • • | mir nerving, enaiting, and puncys. |

No. 4.—RETURN of Notices given to fence or repair Dangerous Parts of Machinery, &c.—
continued.

| AT 1 | | 'a a b ! m a u u | | | Particulars. | |
|------------------|--|------------------|---------|---------|--|--|
| Number. | IVI | achinery | | | I arviousis. | |
| 2 | Flax-mill | | | | Belting. | |
| 1 | | • • • | • • • | | Belting and end of engine-shaft. | |
| 1 | " | ••• | ••• | | Belting and machinery. | |
| 1 | " | ••• | ••• | | Fly-wheel of engine and counter-shaft. | |
| 3 | " | | ••• | ••• | Fly-wheel of engine. | |
| 4 | " | ••• | • • • • | • • • | Machinery. | |
| 1 | " | ••• | •••• | • • • • | Opening in stripper and scutcher to reduce i | |
| 1 | " | ••• | | ••• | width. | |
| 2 | " | ••• | | • • • | Scutcher-belting. Scutcher-mouth to reduce in width. | |
| 4 | " | | • • • | | | |
| 1 | " | • • • | | | Scutcher-shafting. | |
| 2 | " | ••• | ••• | • • • | Shafting and pulley. | |
| 1 | " | | | • • • • | Water-wheel and machinery. | |
| 1 | " " | | . ••• | • • • | Water-wheel to fence and race to cover. | |
| 1 | Flour-mill | ••• | • • • | | Belting and pulley. | |
| 1 | " | • • • | | • • • | Engine and upper part of main driving-belt. | |
| 1 | , ,, | • • • | | • • • • | Machinery. | |
| 1 | " | • • • | | • • • | Two shafts and pulleys | |
| 3 | " | | | | Water-races to cover. | |
| 1 | Fly-wheel | | | • • • | Bracket for wheel repaired. | |
| 1 | ,, | | | | New key fitted. | |
| 2 | Gas-engines | | | | End of crank-shaft. | |
| 6 | , , | | | | Fly-wheel of engine. | |
| 7 | 1 | | | | Fly-wheel of engine and belting. | |
| i | | | | | Main driving-belt. | |
| ĩ | ", | | | | Shafting. | |
| 5 | " | | | | Sleeve to fit over end of crank-shaft. | |
| 1 | Gas-hoist | | | | New wire rope, belting and wheel to guard. | |
| 1 | Gas-lift | | | | Brake overhauled. | |
| 1 | 1 | | | | End of engine-shaft. | |
| | " | • • • | • • • | ••• | New wire rope for counterbalance. | |
| 1 | " | ••• | ••• | ••• | | |
| 1 | " | ••• | ••• | • • • | New upright for bearing, new cap for bearing | |
| | | | | | and ground-floor fenced. | |
| 1 | " | • • • | | . ••• | Safety-grips overhauled and adjusted. | |
| 1 | " | • • • | ••• | • • • | Strengthening plate fitted over fracture i | |
| | 01 | | | | overhead cross-beam. | |
| 1 | Glove-factory | • • • | ••• | • • • | Engine to fence. | |
| 2 | Gold-dredging | • • • | * * * | • • • | Belting. | |
| 5 | " | • • • | ••• | • • • | Circulating-pump belting. | |
| 1 | " | • • • | • • • • | • • • | Crown-wheel fractured, new one fitted. | |
| 1 | " | ••• | | | Crown-wheel slightly cracked. | |
| 1 | " | | | • • • | Elevator-shafting. | |
| 1 | ,, | | | | Elevator - shafting, screen - rollers, pum | |
| | | | | | belting, &c. | |
| 1 | ,, | | | | Machinery. | |
| 2 | " | | | | Main and pump belting, screen-rollers, eleva | |
| , . - | " | | | | ing-gear at top tumblers, friction-gear | |
| | 1 | | | | winch, &c. | |
| 1 | | | | | Pump-belting and fly-wheel of engine. | |
| 1 | " | •• | ••• | | Railing round screen-gearing and sleeve over | |
| 1 | n n | • • • | ••• | | the end of shaft. | |
| 1 | | | | | Screen and elevator-shafting. | |
| 1 | " | ••• | | ••• | | |
| 1 | " | ••• | ••• | ••• | Screen-rollers, elevator and screen shafting. | |
| 1 | " | | • • • | ••• | Screen-rollers and handrail to ladder. | |
| 1 | " | | | • • • | Screen-rollers and gearing, pump-belting, se | |
| | | | | | screws, and sleeve over the end of the cranl | |
| | | | | | shaft. | |
| 1 | " | | ••• | | Screen-rollers, elevator-shafting, set-screws | |
| | } | | | | fence, and cross-piece carrying pivot-sha | |
| * | <u> </u> | | | | to renew. | |
| 1 | ., | | | | Screen-rollers, belting, pump, intermediate | |
| * | " | | • • • | - • • | shafting, and dynamo-belt, | |
| | | | | | Screen-rollers, bevel-gearing, set-serews of | |
| 3 | " | ••• | • • • | ••• | top elevator and tumbler to fence, an | |
| 3 | | | | | handrail of elevator to put in order. | |
| 3 | ļ | | | | | |
| | Chain alassis | • | | | a e 3 t | |
| 1 | Grain-cleaning | ••• | | | Machinery. | |
| | Grain-cleaning Grain-crushing Grinding | | ••• | | a e 3 t | |

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

| umber. | Mad | chinery. | | | Particulars. | |
|------------------|---|----------|---------|---------|---|--|
| 1 | Hauling | | | | Engine to fence. | |
| $1\overline{6}$ | Hydraulic crane | | | | Chains annealed. | |
| $\overline{2}$ | " | | | | Chains repaired. | |
| $1\overline{2}$ | · " | | | | Handrails round platforms. | |
| 1 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | Jib strengthened and new pins fitted. | |
| 2 | <u>'</u> | | | | New elevating chains. | |
| 1 | . " | | | | New wire rope. | |
| 1 | ,,, | | | | Platform and house repaired. | |
| 1 | Hydraulic lift | | | | Chains annealed. | |
| 1 | , , , | | | | Cage fenced. | |
| 2 | ,, | | | | New eye-bolt on guard-rail. | |
| 1 | ,, | | | | New leathers in bucket and valves. | |
| 2 | " | | | | New wire rope for safety-gear. | |
| 2 | ļ <i>p</i> | | | | New springs for safety-catches. | |
| 4 | , ,, | | • · · · | | New wire ropes. | |
| 2 | ,, | | | | Railings round floor-openings. | |
| 13 | n n | | | | Safety-catches overhauled and adjusted. | |
| 1 | .,, | | | • • • • | Two new handrails round floor-openings. | |
| 1 | Iron-foundry | • • • • | | • • • • | Pinions of shearing-machine. | |
| 1 | T 12" | • • • | • • • | • • • | Wheels and pulleys of rolls. | |
| . 1 | Jewellery | • • • | | • • • | Cog-wheels of rolls. | |
| 2 | Joinery | • • • | ••• | • • • | Countershafts. | |
| 1 | " | ••• | | • • • | Crank-shaft of engine. | |
| 1 | " | • • • | | • • • • | End of engine-shaft. | |
| 1 | " | | • • • | • • • • | Fly-wheel of engine. | |
| 1 | " | | ••• | • • • • | Fly-wheel and crank-shaft. | |
| 1 | T in a moulea | • • • | • • • | ••• | Lower driving-wheel of band saw. | |
| $rac{1}{1}$ | Lime-works | | ••• | • • • • | Fly-wheel of engine and driving-belt. | |
| | Log-hauling | | ••• | • • • | Loose fly-wheel made secure. | |
| $\frac{1}{1}$ | Machine-shop | • • • | | • • • • | Belting. Fly-wheel of engine. | |
| 3 | Millsing machine | | | | Belting. | |
| 4 | Milking-machine | 0 | ••• | ••• | Engines to fence. | |
| 1 | " | ••• | ••• | • • • • | Engine and pulley. | |
| $\overset{1}{2}$ | " | | • • • | | Fly-wheel of engine. | |
| 3 | " | | * * * | ••• | Fly-wheel of engine and pump. | |
| 1 | Mincing-machine | | ••• | : | Belt-pulley. | |
| 1 | Pelton wheel | | | | Belting. | |
| ĩ | 2 02002 11 2002 | | | | Fly-wheel of engine. | |
| $\tilde{1}$ | Mortar-mill | | | | Fly-wheel of engine. | |
| $\bar{6}$ | Oil-engines | | | | Belting and pulley. | |
| 4 | " | | | | End of crank-shaft. | |
| 8 | " | | | | Fly-wheel of engine. | |
| 2 | " | | | | Main driving-belt. | |
| 1 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | Railing round engine. | |
| 1 | Overshot water-v | | | , | End of shaft. | |
| 1 | ,, | | | | New axle fitted, woodwork repaired, and t | |
| | | | | | race fenced. | |
| 1 | " | | | | Shafting of machinery. | |
| 2 | " | | | | Railing round wheel. | |
| 1 | Pelton wheel | | | | Belting. | |
| 1 | ,, | | ••• | | Driving-pulley. | |
| 1 | " | • • • | | | Pinion and spur-wheel driving dynamo. | |
| 2 | ,, ' | | | | Shafting and set-screws. | |
| 1 | Pill-making | | | | Main driving-belt and bevel-wheels of | |
| • | | | | | coating machine. | |
| 1 | Planing-mill | | | | Emery wheel. | |
| 1 | " | | | | Machinery. | |
| 1 | ,,, | | • • • | | Sleeve put over the end of crank-shaft. | |
| 1 | Plumbing | | | | Engine and pinions of spouting and ride | |
| | | | | | machine. | |
| 1 | u u | | | | Machinery. | |
| 1 | Power lift | | | | Balance-weights, main driving-belt, and r | |
| | | | | | ing round floor-openings. | |
| 1 | ,, | | | | New wire rope. | |
| 1. | ,, | | | | New sheaves and pins for overhead gear. | |
| | | | | | Railing round floor-openings. | |
| 1 | " | | , | | Safety-gear overhauled and adjusted. | |

No. 4.—RETURN of Notices given to fence or repair Dangerous Parts of Machinery, &c.—continued.

| | | contin | uea. |
|----------------------|--|---|--|
| Number. | Machinery. | | Particulars. |
| 1 | Printing | | Belting and shafting, also sleeve over the end of crank-shaft. |
| 1 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | Belting and wheel of machine. |
| 2 | | | |
| 1 | | | |
| 3 | | | THE LANGE CONTRACTOR OF A |
| 1 | " | • | belting. |
| 1 | ,, | | Fly-wheel, shafting, and belting. |
| $\overline{1}$ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| 2 | ,, | | |
| $\frac{2}{1}$ | <i>u</i> | . Programme in the second | C |
| 1 1 | ,, | | 1 01 - 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - |
| $\frac{1}{2}$ | | | Sleeve over the end of engine-shaft. |
| $\overline{1}$ | Pumping | | |
| 1 | ,, | | Engine and pump gearing. |
| 1 | ,, | | Main driving-belt, and sleeve to put over the end of crank-shaft. |
| 1 | | د • | Classes and of ancina chaft |
| $\frac{1}{1}$ | Quartz-battery | | Mr. alain anns |
| î | " | | Main driving-belt. |
| $\overline{1}$ | , | | |
| 1 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| 1 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | . Water-race, end of crank-shaft, spur-wheels and intermediate shafting. |
| 1 | Range-making | | The last consists also for |
| 1 | Refrigerating | •• | T2: 1 1 6 |
| ī | Sash and door factory | | . Belting and machinery. |
| 1 | " | | |
| 1 | . ,, | | Engine to rail round |
| $\frac{1}{2}$ | " | •• | Tille and all abatains and halting |
| 1 1 | " | . v | Onite day and halaimed |
| i | " | • | Main driving and machine belts. |
| $\bar{1}$ | ,, | | Moulting machine belting and pulleys |
| | | ****** | shaping machine belting and gearing, and |
| 1 | | | emery wheels. Sleeve over the end of engine-shaft. |
| 1 1 | " | | Tenoning machine belting. |
| î | Sawing wood | | Belting. |
| 2 | , | | . Fly-wheel and circular saw. |
| 1 | Sawmill | | Belting. Belting and machinery. |
| $\frac{8}{1}$ | " | | Belting and pulleys. |
| . 1 | " | | Counter-shaft, main belting, circular and ver |
| * | " | | tical saws. |
| . : . [.a 1 : | the grade of the second of the | •• | End of crank-shaft and counter-shafts to be fitted with sleeves. |
| 1 | " | | Engine and main belting. |
| 1 | <i>n</i> | | Firewood saw and breaking-down saw. Fly-wheel of engine. |
| 1 1 | <i>n</i> | •• | Fly-wheel and belting. |
| 1 | | | Fly-wheel, main pulley, and gearing for twi |
| | | *** | saws. |
| 1 | The state of the s | • • | Key-head in breaking-down-saw spindle. |
| 3 | <i>"</i> | | Loose pulley to fit to breaking-down-say |
| | | | spindle. |
| 1 8 | ilian ilian kalendari kalendari kalendari kalendari kalendari kalendari kalendari kalendari kalendari kalendar Kalendari kalendari | | Loose pulley to fit to twin saw. Machinery. |
| 8 1 | | | Machinery and belting. |
| 1 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | Main driving-belt. |
| 1 | ", | | Main driving-belt, pulleys, and end of circula |
| la ger | | | and breaking-down saw spindles. |
| 3 | # · · · · · · · · · · · · · · · · · · · | | Main pulleys and belting, also loose pulley to fit for breaking-down saw. |
| 2 | , , , , , , , , , , , , , , , , , , , | | Planer-belting. |
| 25 | A day of the second of the sec | | , |
| ī | | المراكبين أمامي | Planer-belting and pulleys. |
| | | ، از کاری المحدد از این المحدد | Planer-belting and pulleys. Planer-belting and pulleys, also loose pulle to fit to breaking-down saw. |

No. 4.—Return of Notices given to fence of repair Dangerous Parts of Machinery, &c.—continued.

| 1 Sawmill | | | Particulars. |
|--|---------|---------|--|
| 1 | | | Planer holting and shafring to vertical saw |
| 3 | ••• | ••• | Planer-belting and shafting to vertical saw. Planer and counter-shaft belting, water-whee water-race to cover, grating to fit; als |
| 3 | | | loose pulley to breaking-down saw. |
| 1 | ••• | ••• | Planer-belting and key-head, also appliance for changing belting from fast to loos |
| 1 | | ••• | pulleys to fit. Shafting and belting. |
| 1 | | | Shafting, belting, and breaking-down saw. |
| | | ••• | Shafting, twin saws, and firewood-saw. |
| Seed-cleaning | ••• | | Shaping-machine belt, and caps to fit ov |
| Seed-cleaning | | | set-screws in planing-machine collars. Vertical saw belting. |
| Shearing | | | Engine shaft. |
| Shearing | | | Seed-cleaner. |
| 1 " 1 " 1 " 1 Steam-crane 1 Steam-lift 1 Stone-cruthing 1 Tannery 2 Threshing 1 Ventilating 1 " 1 " 1 " 1 " 2 " 1 " 2 " 1 " 2 " 1 " 1 " 2 " 1 " 1 " 1 " 1 " 1 " 1 " 2 <t< td=""><td></td><td></td><td>Belting and pulleys.</td></t<> | | | Belting and pulleys. |
| Smith's shop Smith's shop Steam-crane Steam-lift Stone-crushing Stone-crushing Tannery Threshing Underclothing-factory Wood-working Stone-crushing Stone | | | Both ends of engine-shaft. |
| 1 Smith's shop 1 " 1 Steam-crane 1 Steam-lift 1 Stone-crushing 1 Stone-crushing 1 Tannery 2 Threshing 1 Underclothing-factory 1 " 1 " 1 " 2 " 1 " 2 " 1 " 2 " 1 " 1 " 2 " 1 " 2 " 1 " 1 " 1 " 1 " 2 " | | | Fly-wheel of engine. |
| 1 Smith's shop 1 " 1 " 1 Steam-crane 1 Stone-crushing 1 Stone-cutting 1 Tannery 1 Threshing 1 Underclothing-factory 1 Ventilating 1 " 2 " 1 " 2 " 1 " 2 " 1 " 2 " 1 " 2 " 1 " 2 " 1 " 1 " 2 " 1 " 2 " 1 " 1 " 1 " 2 " 1 " 2 " 3 " 4 " 5 " 6 | | | Fly-wheel and end of shaft. |
| 1 | | | Key in wheel and pulley. |
| 1 | | | Drilling-machine belt. |
| 1 Steam-crane 1 Steam-lift 1 Stone-crushing 1 Tannery 2 Threshing 1 Underclothing-factory 1 1 2 1 2 1 2 1 2 1 2 1 1 2 1 2 1 1 1 2 3 4 5 6 7 8 9 1 | | | Fly-wheel of engine. |
| 1 Steam-lift 1 Stone-crushing 1 Tannery 2 Threshing 1 Underclothing-factory 1 Ventilating 1 2 1 2 1 2 1 2 1 1 1 1 1 1 2 1 1 1 2 1 2 | | | Railing round engine. |
| 1 Steam-lift 1 Stone-crushing 1 Tannery 2 Threshing 1 Underclothing-factory 1 Ventilating 1 " 2 " 1 " 2 " 1 " 2 " 1 " 2 " 1 " 1 " 1 " 1 " 1 " 1 " 1 " 1 " 1 " 2 " 1 " 1 " 2 " 3 <td></td> <td>• • •</td> <td>New derrick.</td> | | • • • | New derrick. |
| 1 Stone-crushing 1 Stone-cutting 1 Tannery 2 Threshing 1 Underclothing-factory 1 " 1 " 1 " 2 " 1 " 2 " 1 " 2 " 1 " 1 " 1 " 1 " 1 " 1 " 1 " 2 " 1 " 1 " 2 " 1 " 1 " 1 " 2 " < | | | New sheave for derrick. |
| 1 Stone-cutting 1 Tannery 2 Threshing 1 Underclothing-factory 1 Ventilating 1 Wood-working 1 | | | Safety-gear overhauled and adjusted. |
| 1 | • • • • | | Fly-wheel of engine. |
| Threshing Underclothing-factory Ventilating Wood-working """ | | | Fly-wheel of engine. |
| 1 | | | Belting for driving rolls. |
| 1 Ventilating 1 Wood-working 1 " 1 " 2 " 2 " 1 " 1 " 1 " 1 " 1 " 1 " 1 " 1 Water-chute 1 Wheelwright 1 Winding | | | New crank-shaft. |
| 1 | | | End of counter-shaft. |
| 1 | | • • • | Fly-wheel and end of shafting. |
| 1 | | | Screw on end of shaft. |
| 1 | | | All machinery. |
| 1 | • • • | • • • | Belting. |
| 2 | • • • | | Belting and gearing to circular and band saw |
| 1 | • • • | | Belting and gearing to shaper, also band say |
| 2 | | • • • • | Belting of circular saw and planing-machine |
| 2 | • • • | ••• | Belting and pulley. |
| 1 | • • • | ••• | Belting, pulleys, and circular saw. |
| 1 | • • • | • • • | End of engine-shaft. |
| 1 | ••• | • • • • | Fly-wheel of engine and band saw. |
| 1 | | • • • | Fly-wheel of engine and belting. |
| 1 | ·. • • | | Fly-wheel, band saw, and key-heads |
| 1 | | | machines. |
| 1 | | ••• | Fly-wheel and intermediate shaft. |
| 2 | • • • | ••• | Intermediate shaft and end of crank-shaft. |
| 1 | ••• | ••• | Main driving belt and shafting. |
| 1 | ••• | ••• | Main driving-belt, end of shafting and plane belting. |
| 1 | | | Main driving-belt, fly-wheel, band saw, belting |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | ••• | •• | to buzzer, and sleeve to fit over end |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | engine-shaft. |
| $egin{array}{cccccccccccccccccccccccccccccccccccc$ | | ٠ | Main shaft, circular saw, and planer belting |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | ••• | | Planing-machine and circular-saw belting. |
| 1 " 1 Water-chute 1 Wheelwright 1 Winding | | | Shafting. |
| 1 Water-chute 1 Wheelwright 1 Winding 1 " | ••• | | Shafting and machinery. |
| 1 Wheelwright 1 Winding 1 , | • • • | ••• | Sleeve to fit over the end of crank-shaft. |
| 1 Winding 1 " | • • • | • • • • | Fly-wheel of engine and belting. |
| 1 | ••• | ••• | Fly-wheel and shafting. |
| | • • • • | | Clutches of winding-gear overhauled, frame |
| | | 4.5 | drum repaired. |
| 1 Wool-press | | ••• | New cage. |
| T. WOOI-bress | | • • • | Fly-wheel of engine and pulleys. |
| Wool-works | • • • | ••• | Railing round engine. |
| 488 Total. | | | |

No. 5.—Return of Accidents (not Fatal) in connection with Machinery during the Financial Year ending the 31st March, 1907.

| Name and Address of Owner. | Description of Machinery. | Name and Age of Person injured. | Date and Nature of Accident. | Cause of Accident, and Remarks. |
|--|--|--|---|--|
| W. Cable and Co., Waterloo Quay, Wellington | Steam-engine | H. Anderson; 29 years | 3rd April, 1906: toe jambed | Anderson was employed as engine-driver to attend to the engine and boiler. While he was engaged oiling the engine he inadvertently placed his foot on the engine-bed close to the crank. When the crank came round |
| G. D. Wilson and Co., Kumara Railway- station | Portable engine and boiler | Jos. Wm. Baty; 25 years | 5th April, 1906: two serious wounds on the scalp, and was severely burned about the body and chest | it caught his toe. Batty was employed as engine- driver at this mill. His in- juries were caused through the bursting of the boiler, which was of the locomotive type. Several of the small water - space stays broke which supported the inner and outer shells of fire-box. This threw a greater strain on the remaining stays, causing the plate to bulge. This bulging shortened the length of plate, and caused the plate to fracture at bottom of firebox through the extra strain placed on the rivers through the short- |
| C. M. Banks and Co., Thorndon Quay, Wellington | Sewing-machine | Harry Atkinson; 14 years | 11th April, 1906 : broken arm | ening of the plate. Atkinson started the machine while he was engaged cleaning it. He had a cloth in his hand which got entangled in the machinery, and drew his arm round the shaft, causing the injury to his arm. |
| Edward Collie, 41 Riddi- ford Street, Welling- ton South | Surface-planer | Henry Welsh- ford; 35 years | 12th April, 1906: lost three fingers off left. hand | Welshford was planing a small piece of oak, when by some means it lifted up at the back end. Through this his fingers came into contact with the knives of the machine, causing the injury to his loft hand. |
| Henry Berry, 332 St. Asaph Street, Christ- church W. Strange and Co., Moorhouse Avenue, Christchurch | Hand planer and jointer Circular saw | Frank Inns; 17 years Alex. Eickhoff; 40 years | of a portion of each finger of right hand | Inns allowed his hand to slip on to the cutters whilst en- gaged feeding the machine. Eickhoff was employed at the circular saw, and while pass- ing the timber through allowed his hand to be drawn on to the saw, and got it |
| Smart Bros., Maxwell Road, Blenheim | Traction road-engine | P. E. Smart; 33 years | 24th April, 1906: frac- ture of ligaments of knee-joint | badly cut. The stud which holds the driving-pin in the wheel broke, thus allowing the pin to come out of the wheel. The traction-engine at the time was going down an incline. The engine took charge after the pin came out, and, running up the side of a bank, capsized, and caused the injury to Smart. |
| Morrison Bros., Blairlogie, Masterton | Chaff-cutter | Jno. Killgariff; 27 years | 8th May, 1906: cut his hand off at the wrist | caused the injury to Smart. The box which covers the knives of the chaff-cutter by some means got loose, and flew off. Killgariff put his hands up to protect himself, and in doing so one of his hands came into contact with the revolving knife, severing his hand at the wrist. |
| Philip Wills, Hanson Street, Wellington | Shirt and collar ironer | Elizabeth Haining; 22 years | 8th May, 1906: finger jambed | The girl working the machine next to Haining had a shirt lying loosely on her table. Haining, noticing this, attempted to push it under the rollers of the machine with her fingers, when her fingers were taken into the rolls. |

No. 5.—Return of Accidents (not Fatal) in connection with Machinery—continued.

| Name and Address of Owner. | Description of Machinery. | Name and Age of Person injured. | Date and Nature of Accident. | Cause of Accident, and Remarks. |
|--|-------------------------------|-------------------------------------|---|---|
| John Murdoch and Co., Cumberland Street, Dunedin | Mill-saw | Wm. Mowbray; 20 years | 17th May, 1906: arm cut | Mowbray, while engaged at a saw, allowed his arm to come into contact with saw, which caused the injury to it. |
| Otago Brush Company, St. Andrew Street, Dunedin | Wood - shaping machine | Fredk. Swanson; 32 years | 24th May, 1906: injury to right hand | Swanson was engaged at a wood-shaping machine, when he allowed his right hand to get in amongst the cutters |
| John Murdoch and Co., Cumberland Street, Dunedin | Mill-saw | Arthur Tuffin; 29 years | 28th May, 1906: struck in abdomen | of the machine. Tuffin, while sawing a piece of timber, did not put it straight into the saw, and, the timber rebounding, struck him in the |
| Zajonskowski Bros., Marton | Planing-machine | Jos. Zajons- kowski; 37 years | 2nd June, 1906: little finger of left hand broken | abdomen. While Zajonskowski was engaged planing a short piece of wood at the planing-machine the wood flew back, causing |
| Brown Bros., Mill Road, Invercargill | Portable engine | Thos. Bennett; 42 years | 11th June, 1906: foot crushed, and ampu- tated later on | the injury to his finger. When Bennett went up on a platform to oil the engine, he placed his foot on the crank - shaft bracket, and when the crank came round it crushed his foot, causing the injury to the crank came. |
| David Murray and Co., Wanganui | Shop-fan | S. Hodge; 21 years | 14th June, 1906: three fingers crushed | the injury to it. Hodge was lowering the cover of the fan, and allowed his fingers to get between the flanges of the casing of the fan, crushing three of them. |
| W. Naismith, Hopper Street, Wellington | Collar - starching machine | Nellie Telfour ; 18 years | 20th July, 1906: hand jambed | Telfour attempted to move the lever which controls the starching machine by putting her hand through the spokes of a worm-wheel, which was revolving very slowly. She got her hand jambed between the spokes and guard of pinion-wheel. |
| Aulsebrook and Co., St. Asaph Street, Christ- church | Dough-mixer | Abner Slack; 16 years | 30th July, 1906: cut between second and third finger of left hand | Slack attempted to take some dough out of the mixer with his hand while the machine was in motion. He had been expressly forbidden to interfere with the machine in any way. |
| Smith and Smith, South Belt, Christchurch | Circular saw | Robert Boys; 45 years | 31st July, 1906: top of finger cut off | Boys permitted his hand to come into contact with the saw while it was in motion. |
| S. S. Williams, 41 Tara- naki Street, Welling- ton | Wood-planer | W. C. Clark; 32 years | 7th August, 1906: little finger of left hand severed from second joint | |
| Aulsebrook and Co., St. Asaph Street, Christ- church | Lozenge - dough machine | Alfred Beken; 16 years | 14th August, 1906: left arm squeezed | |
| W. Strange and Co., Moorhouse Avenue, Christchurch | Planing-machine | W. Maxwell; 22 years | 15th August, 190 6 : fingers of right hand severely cut | The piece of wood Maxwell was planing slipped, when his fingers came into contact with the knives of the machine. |
| Kauri Timber Company, Customs Street West, Auckland | Shaft of circular saw | Wm. Thompson; 18 years | 30th August, 1906: injuries to lower part of abdomen | While engaged putting a belt on a small pulley he at- tempted to crawl under the shaft. While he was thus engaged his clothing was caught at the back and torn into shreds, causing injury to his abdomen. |
| Stratford, Blair, and Co., Greymouth | Wood working machine | Walter Mur- tagh; 31 years | 1st September, 1906: left hand badly cut; three fingers ampu- tated | Murtagh, while attending to machine, allowed his fingers to come into contact with the knives. |
| Cousins and Cousins, Limited, Lorne Street, Auckland | Sanding-machine | John Irwin; 17 years | | While sanding a splash-board Irwin evidently kept all weight and pressure on one corner of the wood. This caused the springing of the disc from the guard, and made a space large enough for his fingers to enter machine, which caused the in- |

No. 5.—RETURN of ACCIDENTS (not Fatal) in connection with Machinery—continued.

| | | | | · · · · · · · · · · · · · · · · · · · |
|---|---------------------------|------------------------------------|---|---|
| Name and Address of Owner. | Description of Machinery. | Name and Age of Person injured. | Date and Nature of Accident. | Cause of Accident, and Remarks. |
| Scott Bros. (Limited), Manchester Street, Christehureh | Circular saw | L. Evans; 19 years | 14th September, 1906: lost one finger of left hand, and three others lacerated | Evans's hand slipped while pushing the wood on to the saw, and, his fingers coming into contact with the re- |
| | | *** | | volving saw, caused the injury to his hand. |
| Egmont Boot and Shoe Company, New Ply- mouth | Heeling-machine | Geo. MacFarland; 13 years | 14th September, 1906: left hand badly crushed; three fin- gers amputated | The machine was thrown into motion while McFarland's hand was under the drivers; his hand was drawn into the machine, and badly crushed. |
| W. Cable and Co., Waterloo Quay, Wellington | Lathe | W. Signal; 18 years | 19th September, 1906: arm cut above wrist | Whilst Signal was filing up a flax-roller in a turning-lathe his sleeve was caught by the flutes of roller. His arm |
| | | | | coming into contact with the sharp edges of the flutes caused the injury to the arm. |
| W. Ross and Son, Foxton | Hemp - drawing frame | N. Andreason; 17 years | 21st September, 1906: back of hand torn | Andreason was cleaning the machine with a duster, which got entangled in one of the pins of the machine. Another |
| | | | | employee started the ma- chine, not noticing that it was being cleaned, and And- reason's hand was badly torn through coming into contact with truckle-pins of the machine. |
| A. and T. Burt, Limited, Cumberland Street, Dunedin | Drilling-machine | Thos. L. Mc- Lean; 33 years | 21st September, 1906: hand crushed | McLean was working the drilling-machine; a projecting stud of the vertical spindle caught his hand, drew it round, and crushed it. |
| Moffatt Bros., Waikawa | Portable engine | C. Johnston; 31 years | 27th September, 1906: hand crushed | 1 |
| Southland Sand Brick Company, Grassmere | Brick-press | John Webb; 24 years | 2nd October, 1906: finger crushed | Webb carelessly put his hand under the plunger of the brick - pressing machine whilst it was in motion, causing the injury to his |
| C. E. Otley, 287 Madras Street, Christchurch | Planing-machine | J. Meyer; 22 years | 16th October, 1906: two fingers crushed | finger. Whilst Meyer was tightening the bottom set-irons of the planing machine a log of wood fell on his hand, crushing his fingers. |
| John Murdoch and Co., Cumberland Street, Dunedin | Wood-planer | Richard Mack- ley; 17 years | 20th October, 1906: fingers cut | |
| A. J. White (trustees), High Street, Christ- church | Circular saw | Wm. Bridge; 41 years | 7th November, 1906: lost two fingers of right hand, part of third, and injured the fourth | Bridge was removing waste wood from the side of saw when his hand came into contact with the saw, caus- ing the injury to his fingers. |
| J. W. Easson and Co., Kilbirnie | Circular saw | Wm. Pope; 45 years | | |
| C. and W. Hayward, George Street, Dun- edin | Shaper-machine | David Timlin; 18 years | 7th November, 1906: thumb and two fin- gers cut | |
| R. Campbell and Son (Limited), Otekaike Station | | Patk. Kennedy; 50 years | 15th November, 1906: right hand cut clean across | While sawing firewood in smal |
| C. and W. Hayward, George Street, Dun- edin | | Frank Olsen; | 16th November, 1906: flesh wound on ankle | contact with the saw. Whilst working the planing |
| ing Line of the second second Line of the second | | | | with collar on the counter shaft, causing injury to hi ankle. |

No. 5.—Return of Accidents (not Fatal) in connection with Machinery—continued.

| Name and Address of Owner. | Description of Machinery. | Name and Age of Person injured. | Date and Nature of Acciden. | Cause of Accident, and Remarks. |
|---|--|------------------------------------|--|---|
| A. and T. Burt (Limited), Cumberland Street, Du ne din | Belt on lathe | B. Bosworth; 17 years | 19th November, 1906: hurt his head | While fixing counter-shaft of lathe overhead, Bosworth got too close to the belt of |
| | | | | a neighbouring lathe. The belt being in motion, and |
| | | | market and the state of the sta | his head coming into con- |
| | | | | tact with it just at the fastenings, caused the injury to his head. |
| W. Bates and Son, High Street, Christchurch | Planing-machine | Leonard Wise; 18 years | 19th November, 1906: three fingers of left hand injured | Wise, while planing a piece of timber, inadvertently al- lowed his hand to come into |
| | | | | contact with the knives of the machine, which caused |
| Golden Bay Coal Com- pany (Limited), Motu- pipi | Steam-engine for driving grind- ing-mill | E. J. Winter; 32 years | 26th November, 1906: injury to foot | the injury to his fingers. Winter was trying to start the engine with only very little steam on. He was pulling the fly-wheel round when |
| | | | | he raised his foot and placed |
| | | | · · | it on frame of the engine close to the crank-pit. The |
| | - | | | crank of the engine came round and caught him on |
| | | [| | the foot, causing the injury. |
| A. and T. Burt (Limited), Port Chalmers | Lathe | Alfred Smythe; 16 years | 1st December, 1906: injured forefinger of left hand | While working at the lathe Smythe allowed his finger to be caught in the belt that drives the lathe. |
| Wellington Biscuit Com- pany, Victoria Street, Wellington | Steam - jacketed pan | John Kindrick ; 33 years | 18th December, 1906: left arm burnt | The injury was caused through the explosion of the steam- jacketed pan. The ex- haust-valve was not suffi- |
| | | | | ciently open, which allowed pressure to accumulate in |
| J. Wilkie and Co., Cumberland Street, Dunedin | Printing-machine | John Wilde; 16 years | 15th January, 1907: third and fourth fingers of right hand | jacketed part of vessel. Wilde inadvertently put his hand into the printing- machine while it was in |
| W. Crabtree and Sons, Eva and Leeds Streets, Wellington | Drilling-machine | Arthur Harper; 21 years | crushed 28th January, 1907: arm bruised | motion. While working at the drilling- machine, the sleeve of Har- per's coat caught in the |
| | ; | | | twist-drill while the machine was in motion. |
| John Murdoch, Waimate | Circular saw | Jos. Horgan; 44 years | 28th January, 1907: two fingers cut off | Horgan was employed at the saw-bench, when he allowed his hand to come into con- tact with the saw, which |
| | i | | | resulted in the loss of his fingers. |
| Alfred Vincent, Timaru | Portable engine | Richd. Vin- cent; 26 | 29th January, 1907: foot, arm, and | Vincent had just fitted a new bearing-brass to the port- |
| | | years | shoulder badly bruised | able-engine shaft. After the engine had been running some time, he put up his arm to feel if the new bear- |
| | | | | ing was heating. A project- ing portion of the shaft |
| • | | | | caught the sleeve of the guernsey he was wearing, and |
| Jewell and Logan, Here- ford Street, Christ- church | Wood - shaping machine | Cyril Kings- ford; 29 years | 30th January, 1907: thumb badly cut | drew him on to the shaft. Kingsford's hand slipped while he was manipulating a piece of wood at the machine, and, his hand coming into con- |
| Nelson Brick and Pot- | Hauling-gear, | John Pender; | 31st January, 1907: | tact with the knives of the machine, he got it badly cut. The hauling gear by which |
| tery Company, Nelson | band-brake, and drum | 62 years | and bruised chest | this accident was caused was used for lowering clay down an incline in trucks. The brake-lever controlling the gear was attached to an upright post 6 in. by 6 in. This post went through |
| | | | | the floor of the building, and was secured to joist. Pender, when lowering a |
| | | | | loaded truck, presumably allowed the rope to get slack, and the truck thus |
| | | | | gairing an extra impetus, and suddenly jerking the |
| <u> </u> | | | | rope, caused the post to which the brake-lever was attached to lift. The lever struck Pender, and caused |
| | ı | | | the injuries to his chest and hand. |

No. 5.—Return of Accidents (not Fatal) in connection with Machinery—continued.

| Name and Address of Owner. | Description of Machinery. | Name and Age of Person injured. | Date and Nature of Accident. | Cause of Accident, and Remarks. |
|--|---|-------------------------------------|--|--|
| A. and T. Burt (Limited), Cumberland Street, Dunedin | Lathe | Thos. Payton; 28 years | 5th February, 1907: hurt left hand | Payton inadvertently allowed his hand to be caught in the lathe. |
| J. W. Easson and Co., Kilbirnie | Planing-machine | Otto Gunderson; 30 years | 21st February, 1907: thumb badly cut | Gunderson's thumb came in contact with the knives of the planing-machine through the piece of wood he was guiding into the machine slipping. |
| Aulsebrook and Co., St. Asaph Street, Christ- church | Power-lift | Eliza Pardoe; 15 years | 6th March, 1907: one of the metacarpal bones of her right hand bruised and displaced | Pardoe was travelling on the goods-lift contrary to orders. She put her hand out as the lift was descending, getting it caught between the floor of the building and the top batten of the cage. |
| R. Hannah and Co., 63A Lambton Quay, Wellington | Sole-cutting press | J. E. Watts; 26 years | 18th March, 1907: top of first finger of left hand cut off | When putting the block and knife under the sole-cutting press Watts inadvertently placed his finger between the knite and the leather. |
| Joseph Hatch and Co., City Steam Laundry, Invercargill | Ironing - machine heated by gas and air | Ellen Mary Cummings; 28 years | 21st March, 1907: crushed hand | Cummings, who was just commencing work in the morning, reached over her machine to start it instead of going round to the side, her hand being on the table of the machine at the time. When the machine started, her hand travelled with the table, and was drawn under the rollers, thus causing the injury to her hand. |

No. 6.—RETURN of Accidents which proved Fatal in connection with Machinery during the Financial Year ended the 31st March, 1907.

| Name and Address of Owner. | Description of Machinery. Name and Age of Persons injured. | Date and Nature of Accident. | Cause of Accident, and Remarks. | |
|---|---|---------------------------------|--|--|
| G. D. Wilson and Co., Kumara Railway- station | Portable engine and boiler in sawmill | George Wilson; 28 years | 5th April, 1906: right leg broken in two or three places, and internal injuries | Wilson was injured through the explosion of a locomotive boiler which supplied the steam to the sawmill. Several of the small water-space stays had fractured. These stays supported the inner and outer plating of the firebox of the boiler. Through these stays breaking a greater strain was thrown on the remaining stays, which caused them to carry away. The plate, being now unsupported, bulged some 4 in. This bulging shortened the plate, and threw a severe strain on the rivets at the bottom of firebox. This strain caused the plate to fracture there and the boiler to explode. Parts of it were hurled in different directions, which caused the fatal injuries to Mr. G. Wilson, Mr. James Bull, and Mr. John Le Compte, who were all working in the mill close to boiler at the time of explosion. |
| G. D. Wilson and Co., Kumara Railway- station | Portable engine and boiler in sawmill | James Bull; 40 years | 5th April, 1906: killed instantaneously, body being described as bruised almost beyond recognition | Ditto. |
| G. D. Wilson and Co., Kumara Railway- station | Portable engine and boiler in sawmill | John Le Compte; 26 years | 5th April, 1906: gash on the head extend- ing from the front almost to be back, and right arm broken | 22 |

No. 6.—RETURN of Accidents which proved Fatal in connection with Machinery—continued.

| Name and Address of Owner. | Description of Machinery. | Name and Age of Person injured. | Date and Nature of Accident. | Cause of Accident, and Remarks. |
|--|---|--|--|--|
| Waiotahi Gold-mining Company, Thames | A m a I g amating- pans driven by water-power | Tasman G. Schofield; 38 years | 9th May, 1906: large wound at the junction of right arm and shoulder; arm broken in several places. Hæmorrhage and shock, cause of death | The belt that drives the amalgamating-pans slipped on the stationary pulley, and wound round the shaft. Schofield attempted to release the belt, and while standing on a ladder he got his arm entangled in it. His whole body was drawn round the shaft, causing severe injury to his arms and shoulder. He should not have attempted to do what he did until the |
| Trafalgar Gold-dredging Company, Nelson Creek | Gold-dredge | John Cowan Cummings; 33 years | 30th October, 1906: right arm torn out of shoulder-socket, left arm broken, and other injuries | to do what he did until the machinery was stopped. The accident occurred on the elevator-ladder of the gold-dredge. Cummings and one of the other dredge hands were engaged in repairing the hand-rail on elevator while the machinery was in motion. A \(\frac{1}{2} \) in. set-screw that secures a collar on the shaft at about the fifth bearing caught the coat Cummings was wearing. He was immediately drawn into the machinery, and his right arm was torn out at the shoulder, and causing other severe |
| Nelson Brick and Pot- tery Company, Nelson | Band-brake haul- ing-gear | Alex. Lons- dale Baldero; 36 years | 31st January, 1907: right forearm broken in several places, deep wound under the jaw, disloca- tion of the neck, and fracture of the skull | injuries to him which resulted in his death. The hauling-gear was used for lowering clay down an incline in trucks. The brakelever controlling the gear was attached to an upright post. This post had been started from its position earlier in the day, and repairs had been effected to it. Baldwin, who was working the gear, presumably allowed the rope to |
| , and the second | | | | get slack, and the truck run- ning down the incline gained a great impetus. When the rope tightened an enormous undue strain was put upon it, jerking it violently. This extra strain caused the post to which the brake-lever was attached to be torn from its position. The brake-lever caught Baldero, and threw him over the brake-wheel and caused his death. |
| Taupiri Coal-mines, Huntly | Endless-rope haulage | Clarence Skellern; 34 years | 12th February, 1907: scalded terribly all over the body and face | The stop-valve leading from the 6 in. steam-pipe was opened too abruptly. These pipes would contain a considerable quantity of condensed water during the night. The sudden opening of this stop-valve set up a water-hammer action in the pipes. The concussion that followed fractured the stop-valve chest. The fracture showed a clean break, and Skellern was badly scalded by the escaping steam, caus- |
| John Duthie, Nai Nai | Oil - engine and pump | Wm. Hy. Cremer; 36 years | 15th February, 1907: wounds about the head and face, left arm dislocated, and fracture of the base of the skull | ing his death. The belt slipped off the driving- pulley on to the engine- crank shaft into a space about 3 in. wide, between the pulley and the engine fly- wheel. It then came off the pump-pulley at the other end, and began to wind up on the engine-shaft. Cremer, who was near, tried to pull |
| | | | | the belt off the shaft with a piece of wood, when he was caught by the belt and whirled round. His head came into contact with the floor of the engine-house as he was carried round. He received severe injuries, which caused his death, |

No. 6.—RETURN of Accidents which proved Fatal in connection with Machinery—continued.

| Name and Address of Owner. | Description of Machinery. | Name and Age of Person injured. | Date and Nature of Accident. | Cause of Accident, and Remarks. |
|--------------------------------------|-----------------------------|------------------------------------|--|---|
| Waihi Gold-mining Company, Waihi | Shafting, driving agitators | Alex. McLean, jun.; 20 years | 22nd February, 1907: his head was dashed against a large steam-pipe, death being instantaneous | McLean was engaged oiling the bearings of the shafting. The loose coat he was wearing got caught in a coupling on the shaft, and wound hin round the shaft. His head was dashed against a large steam-pipe as he was carried round, causing his death. |
| W. Sneddon, Vogel Street, Dunedin | Emery-grinder | Samuel Wood; 32 years | 27th March, 1907: his head was split open by a portion of the emery wheel, which broke | steam-pipe as he was carried round, causing his death. Wood was employed at the emery wheel grinding cast-steel balls in the rough state about 2½ in. in diameter. He was thus employed when the ball he was grinding slipped out of his hands. It rolled between the base of the machine and the right-hand side of the emery wheel, the space between the base of the machine and the wheel being 1½ in., the ball being larger in diameter than the space in width jammed the wheel, causing its fracture. A portion of it struck Wood on the head. |

No. 7. — Return of Steam-winding-engine Drivers to whom Certificates of Service have been granted from the 1st April, 1906, to the 31st March, 1907.

| Name of F | Person. | | Class | of Certific | oate. | Date of Issu | e. | No. |
|--|---------|--|----------|-------------|-------|------------------|----|----------|
| John Henry Robinson William Pengelly Martin | ••• | | Winding, | service | ••• | 1907. January | 7 | 60 61 |

No. 8.—Return of Steam-winding-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1906, to the 31st March, 1907.

| Name of Person. | | | Class of | Certificate. | | Date of Iss | ue. | No. |
|------------------------------|-------|---------|-------------|--------------|-------|-------------|----------|-----|
| | | | | | | 1906. | | |
| Herbert Henry Hill | ••• | | Winding, co | mpetency | | April | 2 | 335 |
| Henry M. James | | | ,, | | | -,, | 2 | 336 |
| William Henry Saunders | | | ,, | " | | June | 14 | 337 |
| Griffith Jenkins | | | ,, | " | | August | 1 | 338 |
| John Albert Ernest Agnew | | | " | ,, | | ,, | 1 | 339 |
| Thomas Henry Dawson Boles | | | " | " | | ,, | 20 | 340 |
| Alexander Walter Bird | | | ,, | ,, | | ,, | 20 | 341 |
| John Griffin | | | " | " | | ,, | 20 | 342 |
| Harry King Osborne | | | ,, | " | | ,, | 20 | 343 |
| Frederick George Guyatt | | | | " | | September | 28 | 344 |
| Robert Aitken Henderson | • • • | ••• | " • | " | | November | 13 | 345 |
| Walter S. Hilton | ••• | • • • • | ,,* | " | | " | 13 | 346 |
| Hugh Morell | ••• | | " | " | • • • | " | 13 | 347 |
| · · | | | | | | 1907. | | |
| William Henry Dickinson | ••• | | " | " | • • • | January | 7 | 348 |
| Harry Thorley | ••• | ••• | <i>w</i> | <i>n</i> · | | " | 7 | 349 |
| James Kilkelly | | • • • | " | " | | " | 7 | 350 |
| William Thomas Steven Wilson | ••• | | " | " | | February | 28 | 351 |
| Samuel Charles Pung | ••• | , | " | " | | March | 22 | 352 |
| William James Lane | • • • | ••• | " | " | | " | 22 | 353 |
| Ernest William George Hunter | • • • | ••• | " | " | • • • | " | 22 | 354 |

No. 9.—Return of Traction and Locomotive Engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1906, to the 31st March, 1907.

| Name o | of Person. | | | | Class of | Certific | ate. | Date of I | ssue. | No |
|--|------------|---------|---------|----------|----------|----------|-----------|---------------|------------------------------------|------------|
| Henry Bowen | ••• | ••• | • • • | | motive | | traction, | 1906 April | . 2 | 159 |
| Edgar Clarke | | ••• | ••• | Ditto | - · · · | | | " | 2 | 153 |
| Edward George Dale | ••• | ••• | • • • | " | • ; • | ••• | ••• | " | 2 | 153 |
| Horace Woodley | ••• | ••• | ••• | " | .:. | ••• | ••• | " | 2 | 158 |
| John Anketell Charles Anketell | ••• | ••• | ••• | " | • • • | ••• | | " | $egin{array}{c} 2 \ 2 \end{array}$ | 153 153 |
| William Leslie Ruther | ford | ••• | ••• | . " | | ••• | ••• | May | $1\overline{5}$ | 153 |
| Edgar Colin Brewster | | | ••• | ", | ••• | | ••• | may | 15 | 153 |
| Charles McCabe | ••• | ••• | ••• | ", | ••• | | ••• | ,,, | 15 | 15 |
| Albert Thomas Gifford | | | | ,, | ••• | ••• | | <i>"</i> | 15 | 15 |
| Albert Edwin Martin | | ••• | | ,, | • • • | | | ,, | 15 | 15 |
| Harry Rutland | ••• | ••• | | " | • • • | • • • | ••• | " | 15 | 15 |
| Hugh Bishell | • • • | ••• | ••• | " | ••• | • • • | *** | " | 15 | 15 |
| David Anderson | ••• | | ••• | " | ••• | • • • • | ••• | " | 15 | 15 |
| Henry Ernest Chapma William Spencer | | ••• | ••• | " | ••• | • • • | • • • • | " | 15 15 | 154 |
| William Fenton | ••• | ••• | ••• | " | ••• | ••• | ••• | " | 15 | 15 |
| Leonard James Parker | | ••• | | " | | | ••• | " | 15 | 15 |
| George Henry James | | ••• | ••• | " | | | ••• | " | 15 | 15 |
| George Edward Bowm | | ••• | | ,, | ••• | ••• | ••• | ", | 15 | 15 |
| Christopher Coombes | | | | ,, | | | ••• | ,, | 15 | 15 |
| George Knipe | | • • • | | " | ••• | | | " | 15 | 15 |
| Duncan Campbell McA | Arthur Ci | rossman | | " | • • • | | ••• | " | 15 | 15 |
| Ernest Tresidder | | ••• | | " | • • • | | ••• | " | 15 | 15 |
| red Peacock | | ••• | • • • | " | | • • • | ••• | " | 15 | 15 |
| Frederick John Edwar | | ••• | ••• | " | ••• | • • • | ••• | _" | 15 | 15 |
| Arthur John Hewetson | | • • • | • • • | " | • • • | ••• | ••• | June | 14 | 15 |
| Chomas George Lawle | | ••• | ••• | " | ••• | • • • • | ••• | " | 14 | 15 |
| ohn Stewart | ••• | • • • | • • • | " | ••• | • • • • | ••• | " | 14 14 | 15 15 |
| Amos Taylor William Mather Ovens | • • • • | ••• | ••• | " | ••• | ••• | ••• | August | 1 | 15 |
| David Crawford | š | ••• | ••• | " | ••• | | ••• | | i | 15 |
| Henry Benson | ••• | | ••• | " " | ••• | | | " | ī | 15 |
| Ebenezer Hill | ••• | | ••• | , , | ••• | | | " | $\bar{1}$ | 15 |
| Charles Abraham Barr | | | | ,, | | | | ,, | 20 | 15 |
| Bernard O'Hagan | ••• | | | ,, | | | * * * | ,, | 20 | 15 |
| ohn Muir | ••• | | • • • | ,, | • • • | | | ,, | 20 | 15 |
| deorge Edward North | ey Anson | | • • • | " | ••• | | • • • | " | 20 | 15 |
| deorge Clark | • • • | ••• | • • • | " | • • • • | • • • | • • • | " | 20 | 15 |
| llexander Crossan | • • • | • - • | ••• | " | • • • | ••• | | " | 20 | 15 |
| homas Dixon | M. | | • • • | " | ••• | | ••• | " | 20 | 15 |
| Peter Alexander Mack ames McNeill | | | • • • • | " | • • • | ••• | ••• | " | 20 20 | 15 15 |
| ames McNeill harles Neilson | ••• | ••• | ••• | " | ••• | ••• | ••• | " | 20 | 15 |
| ames Morrison Taylo | r | ••• | ••• | " | ••• | ••• | ••• | " | 20 | 15 |
| Aartin Frederick Voig | | ••• | ••• | " | | | • • • | " | 20 | 15 |
| Alfred John Coe | ••• | | • • • • | " | ••• | | ••• | " | 20 | 15 |
| Charles Parnell Scanne | | ••• | ••• | ", | | | | " | 20 20 | 15 |
| eorge Dement Grant | | ••• | | , , | | | | ,, | 20 | 15' |
| Villiam Stuart Forbes | | ••• | | " | | | ••• | " | 20 | 15' |
| Charles Reid Crawford | | ••• | | " | | | | " | 20 | 15' |
| ldmond Hassett | • • • | | • • • | , ,, | • • • | • • • • | ••• | " | 20 | 15 |
| ohn Mattinson | | ••• | ••• | " | • • • | | • • • | # | 20 | 15 |
| homas Edward Marti | | ••• | ••• | " | ••• | • • • | ••• | " | 20 | 15 |
| ames O'Connor | • · • | ••• | ••• | " | ••• | ••• | ••• | " | 20 | 15 |
| amuel Trusler | • • • | ••• | ••• | " | ••• | | ••• | " | 20 20 | 15 15 |
| 'homas Young ohn Gabriel Lawson | | ••• | ••• | " | ••• | ••• | ••• | " | 20 | 15 15 |
| ohn Livett | ••• | | | " | ••• | ••• | | " | 20 | 15 |
| pencer Frederick Rey | | ••• | | ", | ••• | | ••• | " | 20 | 15 |
| atrick Cody | ••• | ••• | ••• | ", | ••• | | ••• | " | 20 | 15 |
| Villiam George Wood | | | | , , | | | | ", | 20 | 15 |
| Robert Campbell | | | | ,, | ••• | | ••• | ", | 20 | 15 |
| ohn Joseph Dooley | | ••• | ••• | ,, | | | | ", | 20 | 15 |
| Richard Gollan | | | | " | ••• | | ••• | " | 20 | 15 |
| lexander Robert Grof | skv | | | ,, | | | | ,, | 20 | 15 |

No. 9.—RETURN of TRACTION and LOCOMOTIVE Engine Drivers—continued.

| Name of I | Person. | | | | Class of | f Certific | ate. | Date of Iss | ue. | No |
|--|---------|---------|---------|----------|------------------|---|-----------|---|-----------------|----------|
| Joseph Francis Hanley | | | | Locon | notive npeten | and .cy | traction, | 1906. August | 20 | 15 |
| John Harkness | | | ••• | Ditto | - | • | | " | 20 | 159 |
| Benjamin Humm | | | | " | • • • | • • • | | " | 20 | 15 |
| ames Alexander Kingdo | | ••• | ••• | " | • • • | ••• | ••• | " | 20 20 | 15 15 |
| Robert Bignell Langwort | - | ••• | ••• | " | ••• | ••• | ••• | " | 20 | 160 |
| Patrick Joseph Luddy John James Mills | | ••• | | " | | | ••• | , , , | 20 | 160 |
| Ernest Fitzwilliam Morg | | | ••• | " | | | ••• | ,,, | 20 | 16 |
| Chomas Lester Anderson | | | • • • | ,, | | | | ,, | 20 | 16 |
| Ernest William Roesler | • • • | ••• | | ,, | | | | " | 20 | 16 |
| William Stewart | • • • | | | " | • • • • | • • • | ••• | " | 20 | 16 |
| William Stewart | ••• | • • • | • • • | " | ••• | • • • | | " | 20 20 | 16 16 |
| Adam Werner Ohn Wilson | | • • • • | ••• | " | | ••• | ••• | " | 20 | 16 |
| 1.00 | • • • | ••• | • • • | " | | | | " | 20 | 16 |
| Nilliam Innes | • | • • • • | • • • | " | | | ••• | ." | 20 | 16 |
| David Rogers | *** | | | ", | | ••• | | ,, | 20 | 16 |
| Edward Stack | | | | " | | | ••• | " | 20 | 16 |
| Robert Wade | • • • | ••• | • • • | ,, | | | ••• | " | 20 | 16 |
| eorge Edward Washer | | ••• | • • • • | " | ••• | ••• | ••• | " | 20 | 16 16 |
| Valter Ebenezer Watkin | | • • • | ••• | " | • • • | • • • • | ••• | " | 20 20 | 16 |
| homas James Armitage | • • • | • • • | • • • | [" | ••• | ••• | *** | " | 20 | 16 |
| Charles Cowan Ernest Oakey | ••• | • • • | ••• | " | | ••• | ••• | September | | 16 |
| irnest Oakey Pavid John Max | ••• | • • • | | ,,, | | | | Loptomicor " | $\overline{12}$ | 16 |
| lbert Edward Olsen | | | ••• | , , | ••• | | ••• | November | 13 | 16 |
| dam Blair, jun | • • • | | | ,, | | | | ,, | 13 | 16 |
| ichard John Albert Gor | don | | | ,, | • • • | | ••• | " | 13 | 16 |
| ichard Culmer Alsop | ••• | • • • | • • • | " | | | ••• | ',, | 13 | 16 |
| obert Crump | • • • | ••• | ••• | " | ••• | | ••• | " | 13 | 16 |
| rancis George Gibbs | ••• | ••• | ••• | " | ••• | | ••• | " | 13 13 | 16 16 |
| oseph Gibson lbert Greaves | ••• | • • • | ••• | " | | | ••• | " | 13 | 16 |
| oseph Hill | • • • | ••• | ••• | ", | | | | " | 13 | 16 |
| lenry James Major | , | | | ", | ••• | | | l " I " | 13 | 16 |
| Ierbert James Petrie | | | | ,, | | | ••• | ", | 13 | 16 |
| ames Ross | • • • | | | ,, | | | ••• | " | 13 | 16 |
| ohn Robert Smith | , | • • • | | " | • • • | | | . " | 13 | 16 |
| idney Richard Tomline | • • • | • • • | | " | | ••• | ••• | ļ <i>"</i> | 13 | 16 |
| ames Walker | • • • | • · • | ••• | " | | ••• | • • • | , " | 13 13 | 16 |
| harles Ovens | • • • | | ••• | " | • • • | | ••• | " | 13 | 16 16 |
| lexander Aitken ndrew Brown | | · · · | ••• | <u>"</u> | | | | ", | 13 | 16 |
| Villiam Geddes, jun. | ••• | | | " " | | | ••• | ", | 13 | 16 |
| rank Irving Rawson | ••• | ••• | ••• | ,, | | | | ,, | 13 | 16 |
| Ienry Selwyn March | • • • • | • • • | | " | ••• | | | " | 13 | 16 |
| lobert Thomas Paton | | • • • | • • • | ,, | ••• | ••• | | " | 13 | 16 |
| Robert Russell | | • • • | ••• | " | • | ••• | ••• | " | 13 | 16 |
| ohn Blake | ••• | ••• | ••• | " | • • • | ••• | ••• | " | 13 13 | 16 16 |
| Villiam Hall Trancis John Donnithorn | | ••• | ••• | " | ••• | • | | " | 13 | 16 |
| ohn Holmes | 16 | ••• | ••• | . " | ••• | | |) " | 13 | 16 |
| amuel Alexander Manag | gh | | ••• | " | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 13 | 16 |
| ames Kennedy Wood | ••• | | | ,,, | | | | " | 13 | 16 |
| ohn Williams | | | | " | | | ••• | " | 13 | 16 |
| ames McPherson | | ••• | • • • • | " | | | | " | 13 | 16 |
| ndrew James Bartlett | ••• | ••• | ••• | " | ••• | • • • | ••• | " | 13 | 16 |
| Villiam John Patterson | ••• | ••• | ••• | " | | | • • • | " | 13 13 | 16 16 |
| leorge Duncan Jenkins | ••• | ••• | ••• | " | ••• | ••• | ••• | " | 13 | 16 |
| 'orrest Dickson Vallace Furphy | | • • • | | " | | ••• | | " | 13 | 16 |
| Vallace Furphy Villiam Graham | | • • • | ••• | " | ••• | | | " | 13 | 16 |
| ohn Kay | ••• | | ••• | ,, | | | | ,, | 13 | 16 |
| Villiam McFarlane | ••• | | | " | | • • • | ••• | ,, | 13 | 16 |
| amille Michael Malfroy | | | | " | | | | ¹ " | 13 | 16 |

No. 9.—RETURN of TRACTION and LOCOMOTIVE Engine Drivers—continued.

| Name of P | erson. | | | | Class of | Certific | ate. | Date of Iss | ue. | No. |
|-----------------------------|---------|---------|---------|-------|-------------------|----------|-----------|---|-----------------|-----|
| | | | ** | | | | | 1907. | | |
| William Herbert Hawkes | ••• | • • • | ••• | i | notive apeteno | | traction, | January | 7 | 166 |
| John Edward Snowden | | ••• | | Ditto | | · | | ,, | 7 | 166 |
| Thomas Allen | | | | " | | | • • • | February | 28 | 166 |
| William Bird | | | | ", | | | | ,, | 28 | 166 |
| David Duncan | | | | ,, | | | | ,, | 28 | 166 |
| David Matheson France | | | | ,, | | | | " | 28 | 166 |
| William Oswald Price | | | | ", | , | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 28 | 166 |
| Robert William Beattie | | | ••• | | | | | | 28 | 166 |
| William Edyvean | | | | " | | | ••• | " | 28 | 166 |
| Maurice Sylvester Ewan | | | | " | ••• | | | " | 28 | 166 |
| | ••• | ••• | • • • • | " | • • • • | ••• | ••• | " | 28 | 167 |
| arthur Hayman | | | • • • | " | • • • • | ••• | ••• | " | 28 | 167 |
| Frederick Harvey Killwon | .011 | ••• | • • • | " | ••• | • • • | ••• | " | | |
| deorge Loper | • • • | * * * | • • • • | " | • • • | • • • • | *** | " | 28 | 167 |
| rchibald Moore | • • • • | • • • | • • • | " | • • • | • • • | • • • • | " | 28 | 167 |
| ames O'Connor | • • • | ••• | • • • | " | | • • • | • • • | " | 28 | 167 |
| ohn O'Neill | | | | " | | | | ,, . | 28 | 16' |
| ames Tiffen | | | • • | " | | | | ,, | 28 | 167 |
| ohn Robert Kirby | | | | " | ••• | | | ,, | 28 | 16' |
| ames Charles Anderson | | | | ,, | | | | ,, | 28 | 16 |
| Ierbert James Chapman | | | | ,, | • • • | | | ,, | 28 | 168 |
| Henry Bennison Ewen | | | ••• | ĺ | | | | | 28 | 168 |
| Villiam George Foster | | | | " | ••• | ••• | ••• | " | 28 | 168 |
| Villiam Jesse Mitchell | | | ••• | " | | | | " | 28 | 168 |
| harles James Burr | • • • | • • • • | ••• | " | ••• | ••• | • • • | " | 28 | 168 |
| | • • • | • • • | • • • | " | ••• | • • • • | ••• | " | 28 | 168 |
| ames Draper | | • • • | • • • | " | • • • | | | " | | |
| erthur Richard Gillespie | • • • | ••• | • • • | " | • • • | • • | ••• | " | 28 | 168 |
| eorge Harvey | ••• | | • • • | " | • • • | • • • | • • • | " | 28 | 168 |
| dward Read, jun. | | • • • | • • • | " | | • • • | ••• | " | 28 | 168 |
| ohn Campbell | • • • | | • • • | " | ••• | • • • | | " | 28 | 168 |
| Rene Francois Beautrais | | | | " | | • • • | | " | 28 | 169 |
| Robert Axel Forsman | | | | " | | | | ,, | 28 | 169 |
| Edward Wallace Butler | | | | . ,, | | | | " | 28 | 169 |
| Ernest John Bridgman | | | | ,, | | | | ,, | 28 | 169 |
| Charles Joseph Butler | ••• | | | ", | | | • • • • | ,, | 28 | 169 |
| Oonald Alexander Falcon | | | | | | | | | $\overline{28}$ | 169 |
| ohn Holmes | | | | " | • • • | | | " | 28 | 169 |
| - · · · · · · · · · · · · · | ••• | | ••• | " | • • • • | ••• | ••• | " | 28 | 169 |
| Herbert Wilson Mears | ••• | ••• | • • • | " | ••• | ••• | | " | | |
| homas Stewart Spencer | ••• | • • • | • • • | " | ••• | • • • | | " | 28 | 169 |
| lichard Alfred Tippett | ••• | • • • | • • • | " | • • • | ••• | | " | 28 | 169 |
| rank Campbell | • • • • | | ••• | " | • • • • | | | " | 28 | 170 |
| Villiam Henry Butler | • • • | | | " | • • • | • • • | | . # | 28 | 170 |
| rchibald McLean | | | | " | • • • | | • • • | " | 28 | 170 |
| dam Nelson | | | | " | | | | ,, | 28 | 170 |
| Villiam Leonard Scorrar | | | | ,, | | | | ,, | 28 | 170 |
| ames Stephen Donaldson | | | | ,, | | | | March | 22 | 170 |
| homas Daniel Street | - | | | " | | ••• | | " | 22 | 170 |
| arthur Gibb | | | | | | | | | 22 | 170 |
| ii viidi (III) | ••• | *** | | " | | • • • • | | " | | -10 |

No. 10.—Return of First-class Stationary-engine Drivers to whom Certificates of Service have been granted from the 1st April, 1906, to the 31st March, 1907.

| Name of | Person. | | (| class of | Certificate | • | Date of Iss | No. | |
|---|------------------|------|-----------------------------|----------|--------------------|---------------|--|--------------------------------|--|
| Raymond Fitzmaurice Frederick Francis Easts David Burns William Thomas Bloy Thomas Long John Henry Robinson | gate | | First serv Ditto " | - | statio | nary, | 1906. April 1907. January February " March | 2 7 28 28 28 22 | 1648 1649 1650 1651 1652 1653 |

No. 11.—Return of Extra First-class Stationary-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1906, to the 31st March, 1907.

| Name of Pers | on. | | Class of Certificate. | Date of Iss | ue. | No. |
|----------------------------|-----|-----|------------------------------|----------------|-----|-----|
| | | | | 1906. | | |
| George Richard Hale | ••• | | Extra first-class stationary | April | 2 | 36 |
| Albert Errington Exley | | | ,, | | 2 | 37 |
| Edward Crow | | | ,, | June | 14 | 38 |
| Frederick Charles Davie | ••• | | " | August | 1 | 39 |
| Archibald Maltby Broadbent | | | ,, | . ,, | 20 | 40 |
| John Greengrass | | ••• | " | November 1907. | 13 | 41 |
| Frank Septimus Marchant | ••• | | ,, | February | 28 | 42 |
| William Henry Stewart | ••• | | " | , , | 28 | 48 |

No. 12.—Return of First-class Stationary-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1906, to the 31st March, 1907.

| Name of | Person. | | | (| lass o | f Certificate | • | Date of | Issue. | No. |
|-------------------------|---------|---|---------|--------------|---------|---------------|-------|---------------------------------------|-----------------|-----|
| | | , | | | | | | 1900 | 3. | |
| Adam Denniston | ••• | ••• | ••• | First - pete | | stationary, | com- | April | 2 | 85 |
| Alfred Latimer | • • • | ••• | | Ditto | | ••• | | " | 2 | 85 |
| Dominick John Lee | | | | " | | • • • | | " | 2 | 85 |
| Edgar Clarke | | | | " | | ••• | | " | 2 | 85 |
| Wilson Cook | | | | ,, | | | | ,, | 2 | 85 |
| Robert Mackay | | | | ,, | | ••• | | ,, | 2 | 85 |
| Charles Thomas Brown | | | | ,, | | | ••• | ,, | 2 | 85 |
| Sidney Leonard Weller | | • • • | • • • | ,,, | | • • • | | " | 2 | 86 |
| oseph Henry Sparrow | | | | ", | | | | " | 2 | 86 |
| Benjamin Peter Hansen | | | | ,, | | | | ,, | 2 | 86 |
| John Heinrich Schmidt | | | | ", | | | | " | 2 | 86 |
| Samuel Watt Burns | ••• | ••• | | ", | | ••• | ••• | | 2 | 86 |
| Frank Neville Heath | • • • • | ••• | ••• | " | | | | May | $1\overline{5}$ | 86 |
| Francis James Ramsden | • • • • | | ••• | , ,, | | ••• | | - | 15 | 86 |
| Laurence Godfrey Tuke | ••• | ••• | | | | ••• | | " | 15 | 86 |
| Nils Peter Nelson | | | ••• | " | | ••• | ••• | " | 15 | 86 |
| Stanley William Max Co | | | ••• | " | • • • • | | | " | 15 | 86 |
| | | • • • | ••• | " | ••• | . • • | ••• | " | 15 | 87 |
| homas Huckstep | ••• | • • • | ••• | " | • • • | ••• | ••• | " | 15 | |
| Harold Richardson | • • • | ••• | ••• | " | ••• | ••• | ••• | " | | 87 |
| Arthur Marychurch | • • • | • • • | • • • | " | • • • | ••• | • • • | " | 15 | 87 |
| ames Joseph Enright | • • • | ••• | | " | • • • | ••• | ••• | " | 15 | 87 |
| William Lestlie Adams | • • • | • • • | • • • | " | • • • | • • • | • • • | " | 15 | 87 |
| ames Cable | • • • | • • • | • • • | " | • • • | ••• | • • • | " | 15 | 87 |
| eorge William Loughto | n | • • • | • • • | " | ••• | | ••• | " | 15 | 87 |
| William Gillanders | • • • • | ••• | • • • | " | • • • | • • • | ••• | " | 15 | 87 |
| John Athol Nicol | • • • | • • • | • • • | " | ••• | ••• | ••• | " | 15 | 87 |
| Tames Watson Pollok | • • • | • • • | | " | • • • | • • • | ••• | " | 15 | 87 |
| Charles Edward Tomlins | on | | • • • • | " | | ••• | | 11 | 15 | 88 |
| Cecil Lancelot Wilson | | • • • | • • • • | " | | | • • • | ,,, | 15 | 88 |
| William Robert Aicken | ••• | • • • | ••• | " | • • • | • • • • | | " | 15 | 88 |
| David Craig | | ••• | ••• | " | | • • • | | " | 15 | 88 |
| ames Nicol McColl | | | | ,, | | ٠ | | " | 15 | 88 |
| Henry Cook McKay | | | | ,, | | | ••• | " | 15 | 88 |
| John Henry Birkbeck | | | ••• | ,, | | | | ,, | 15 | 88 |
| William McVie | | ••• | | , | | | | ,, | 15 | 88 |
| Allan Leslie Gatland | | | | ", | | | ••• | , , , , , , , , , , , , , , , , , , , | 15 | 88 |
| Henry Andrew Bower | ••• | | | ", | ••• | ••• | | ,,, | 15 | 88 |
| Henry James Mills | ••• | | | ,,, | ••• | ••• | ••• | ", | 15 | 89 |
| Egerton Burns | ••• | | | ", | | ••• | ••• | | $\overline{15}$ | 89 |
| Alfred Crawford | | | | | | • • • • | ••• | " | 15 | 89 |
| Percy Clifton Firth | | | | " | | ••• | ••• | " | 15 | 89 |
| lames Fleming | ••• | ••• | ••• | " | | | | " | 15 | 89 |
| | | • • • • | ••• | " | ••• | • • • • | ••• | " | 15 | 89 |
| Henry Duncan Goldswor | | ••• | ••• | # . | ••• | ••• | ••• | " | 15 | |
| Joseph William Jeffcote | . • • • | • • • | ••• | " | • • • | ••• | ••• | " . | | 89 |
| Sidney Melville Letts | ••• | ••• | • • • • | " | • • • | ••• | ••• | " | 15 | 89 |
| Thomas Stout Macgrego | Ľ | | | " | | • • • | | " | 15 | 89 |

No. 12.—RETURN of FIRST-CLASS STATIONARY-ENGINE DRIVERS-continued.

| Name of H | Person. | | | | Class | of Certificate. | | Date of Is | ssue. | No |
|---|------------|-------|---------|---------------------------------------|---------|-----------------|-------|---------------------------------------|-----------------|-----|
| Albert Linton Stone | | ••• | ••• | | | stationary, | com- | 1906. May | 15 | 9 |
| ames Treloar | | | | Ditto | ency | | | ,, | 15 | 9 |
| ohn Richard Arthur Wo | rm | | ••• | " | | ••• | ••• | ,,, | 15 | 9 |
| Ernest Richardson Emers | | ••• | | , , , , , , , , , , , , , , , , , , , | | | | ,, | 15 | 9 |
| ohn Duncan | | | | ,, | • • • | ••• | ••• | June | 14 | . 6 |
| Wilson Thomas Strachan | | • • • | • • • | , " | • • • | ••• | • • • | " | 14 | ç |
| Valter Smith | • • • | ••• | ••• | " | ••• | ••• | ••• | " | 14 | ç |
| 'rederick Charles Davie 'rank Henry William Br | adahaw | ••• | ••• | " | • • • • | ••• | ••• | " | 14 14 | ç |
| rchibald Smellie | | ••• | | " | ••• | ••• | ••• | " | 14 | ç |
| Decil Willie Croll | | | ••• | ", | ••• | ••• | ••• | ", | 14 | ć |
| Hugh Morell | | ••• | | ,, | • • • | ••• | ••• | August | 1 | ç |
| ohn Joseph Springay | ••• | ••• | • • • | " | • • • | ••• | | " | 1 | 9 |
| Albert Frederick Long | • • • • | ••• | • • • | " | ••• | ••• | • • • | " | 1 | ç |
| Samuel Charles Pung | ••• | ••• | • • • | " | ••• | ••• | ••• | " | 1 | ç |
| ohn Albert Ernest Agne Chomas Corr | | ••• | • • • • | " | • • • | *** | ••• | " | 1 20 | . (|
| ohn Henry Liggins | | ••• | ••• | " " | • • • • | ••• | | " " | 20 | ç |
| Sidney Frank Waite | | | • • • • | " | ••• | ••• | ••• | ", | 20 | ç |
| Harold Boyd | | ••• | | ,, | ••• | ••• | • • • | ,, | 20 | ç |
| Patrick Joseph Nolan | • • • | ••• | ••• | " | • • • | ••• | ••• | , ,, | 20 | 9 |
| rederick Charles Webb | | ••• | • • • | " | • • • | ••• | ••• | " | 20 | 9 |
| ohn Raymond Wilson | ••• | ••• | ••• | " | ••• | • • • | • • • | " | 20 | (|
| ames Jones Crawford Henry Herbert Moss | | ••• | ••• | " | • • • | ••• | ••• | " | 20 20 | Ç |
| Francis Wyron Vickerma | n | | ••• | " | • • • • | ••• | | " | 20 | ç |
| William Robert Young | | | | " | | ••• | | " | 20 | ç |
| Charles Sydney Woodwar | | | | , , | | | | , , , , , , , , , , , , , , , , , , , | 20 | ξ |
| leorge Frederick Perkins | | • • • | ••• | ,,, | | | | ,, | 20 | Ş |
| albert Walker | ••• | ••• | | " | • • • | ••• | | ,, | 20 | ç |
| Villiam Darbyshire Hesf | | ••• | ••• | " | • • • | ••• | ••• | " | 20 | 9 |
| Henry John Anthony | ••• | ••• | ••• | " | • • • | • • • | ••• | " | 20 20 | ç |
| Charles William Thomson ohn Marshall | и | ••• | ••• | " | ••• | • • • | ••• | " | 20 | ç |
| ames McBeath Calder | | ••• | ••• | " | ••• | ••• | ••• | | 20 | ç |
| Lewis Rose Gillanders | ••• | ••• | ••• | ", | | | ••• | " | 20 | ç |
| Phomas Cuddie Brash | | | | ,, | | | | ,, | 20 | ç |
| William Dempster | ••• | • • • | ••• | " | | ••• | | " | 20 | ç |
| eorge Gilbert Body | ••• | ••• | • • | , ,, | • • • | • • | • • • | " | 20 | 6 |
| Valter James Chaplin | • • • | ••• | ••• | " | • • • | ••• | | " | 20 | ç |
| Villiam Francis Hallins ames Kirker | ••• | ••• | ••• | " | •• | ••• | | " | $\frac{20}{20}$ | ç |
| ames Kirker Charles James McKelvey | • • • | ••• | | " | • • • | ••• | ••• | " | 20 | ç |
| | | | | " | ••• | ••• | | " " | 20 | ç |
| rederick Leven Birch W | | ••• | ••• | ,, | | ••• | | , , | 20 | ç |
| Duncan McPhail | • • • | | ••• | " | • • • | ••• | ••• | " | 20 | ç |
| Harry King Osborne | | | | " | • • • | | • • • | ~ ". | 20 | . 9 |
| ames O'Brien | ••• | ••• | • • • | " | • • • | ••• | ••• | Septembe | | 9 |
| lwend August Nelson Arthur Reginald Howe F | | ••• | ••• | " | • • • | ••• | ••• | " | $\frac{12}{28}$ | 9 |
| Ernest Edwin Pellew | ianois | ••• | ••• | " | ••• | ••• | | " | 28 | 9 |
| Villiam Stewart Lockhes | ıd | | | " " | | ••• | | " " | 28 | g |
| ngus William Cameron | Macdon | | | <i>"</i> , | | ••• | | ,,, | 28 | . 6 |
| Villiam George McGee | | | ••• | ,, | | ••• | ••• | " | 28 | 9 |
| rederick George Guyatt | | | ••• | " | ••• | ••• | ••• | ,, | 28 | ç |
| ames Thomas | ••• | ••• | • • • | " | • • • • | *** | ••• | Maramba | 28 | ç |
| Iector McKenzie Villiam Alexander Wooll | er Nicol | ••• | ••• | " | ••• | ••• | ••• | November | r 13 13 | 9 |
| Villiam Fenton | | | ••• | " | • • • | *** | ••• | " | 13 | 9 |
| rank Charles Buchanan | | | | " " | | ••• | ••• | " | 13 | g |
| rthur Adsett | | ••• | | ", | | ••• | ••• | ", | 13 | g |
| Robert Russell | ••• | ••• | | ,,, | | | | ,, | 13 | 9 |
| Ienry Cecil Heays | ••• | ;·· | | ,, | ••• | ••• | ••• | " | 13 | 9 |
| Charles White | • • • | ••• | ••• | " | ••• | ••• | ••• | " | 13 | 9 |
| ohn Simpson | • • • | ••• | | " | • • • | ••• | • • • | " | 13 | 9 |
| arthur Weber | | | | | | | | l | 13 | |

No. 12.—RETURN of FIRST-CLASS STATIONARY-ENGINE DRIVERS—continued.

| Name | of Person. | | | | Class | of Certificate. | | Date of Is | sue. | N |
|---|--------------|-----------|---------|----------|---------|-----------------|---------|---|-----------------|----------|
| George Stralis Rees | | • • • | •••, | | class | stationary, | com- | 1906. November | 13 | 9 |
| ames McVie | | | ••• | Ditto | | | | ,, | 13 | 9 |
| John Blair | ••• | • • • • | ••• | ,, | • • • | • • • | | ,, | 13 | 9 |
| ohn Joseph Enright | D | ••• | | " | • • • | • • • | • • • | " | 13 | 9 |
| Richard John Leslie H Reorge Thomas Barke | oromiey | • • • | ••• | " | | • • • | ••• | " | 13 13 | 9 |
| beorge Thomas Darke David John McKay | | • • • | | " | • • • • | | ••• | " | 13 | 9 |
| rank Dunlop Malcoli | nson | | | " | | | | " | 13 | 9 |
| dward Mudie | | ••• | ••• | " | | | | " " | 13 | 9 |
| ohn Talbot | | | | ,,, | | | • | " | 13 | 9 |
| leorge Wilkin | | ••• | | ,, | | | | ,, | 13 | 6 |
| Villiam Trott | | ••• | | <i>"</i> | | | | ,, | 13 | 9 |
| harles Edward Cain | ••• | • • • | • • • | " | • • • | | • • • | ,, | 13 | 9 |
| Cecil Edwin Bryant | ٠ | ••• | ••• | " | • • • | ••• | | " . | 13 | 9 |
| ndrew Dickson C ra v Jeorge William Crawl | | ••• | ••• | " | | ••• | • • • | " " | 13 13 | 9 |
| incent Rees Earnsha | | | ••• | " | • • • | • • • | • • • • | " | 13 | 9 |
| lexander Govan | | ••• | ••• | " | • • • | ••• | | " | 13 | ğ |
| Villiam John McGoni | | | • • • • | ", | | | | " " | 13 | g |
| eter Scott | | | | ", | | ••• | | , , , , , , , , , , , , , , , , , , , | 13 | 9 |
| Iatthew Robert Skiry | ing | | | ,, | | | | ,, | 13 | 6 |
| ohn James Walker | | | | ,, | | | | ,, | 13 | 6 |
| ohn James Whalan | • • • • | ••• | | " | | | • • • | ,, | 13 | ç |
| eodor Werner | • • | • • • | ••• | " | | | • • • | ,, | 13 | 9 |
| Ianasseh Horsfall | ••• | • • • | ••• | " | • • • | • • • | • • • | . ,, | 13 | 9 |
| leorge Gillanders | | ••• | | " | • • • | ••• | • • • | " | 13 | 9 |
| ohn Baillie Iorace Alexander Bov | | ••• | ••• | " | • • • • | *** | • • • | " | 13 13 | 9 |
| rthur Cecil Bowman | νθε | • • • • | ••• | " | | ••• | • • • | " | 13 | 5 |
| Villiam Arthur Chelle | | • • • • | | " | | ••• | ••• | " | 13 | ç |
| ugust Crowder | ••• | | | " | | ••• | | " | 13 | į |
| ared Henry Graham | *** | | | ", | | | | ", | 13 | (|
| lobert Aitken Hender | son | | | " | | | | ,, | 13 | 10 |
| ames Shatlock McIn | | | | ,, | | | | ,, | 13 | 10 |
| Villiam Thomas Web | | ••• | | ,,, | | | ••• | " | 13 | 10 |
| rthur Guyon Purcha | | i | • • • | " | • • • | • • • | | " | 13 | 10 |
| rederick Walter Rob | | | | . " | • • • | • • • | ••• | " | 13 | 10 10 |
| oseph Bickford Warv | vick wilkes | ••• | ••• | " | • • • • | ••• | | ″907. | 13 | 10 |
| Alfred Rouch | | | | | | | | January | 7 | 10 |
| William Alexander Qu | ick | | | " | | ••• | ••• | 1 | 7 | 10 |
| ames Henry Winton | | ••• | | " | | ••• | | ", | 7 | 10 |
| dward John Newton | | | | ,, | | | ••• | ,,, | 7 | 10 |
| Ienry Sutton Scriven | er | | | " | | • • • | | ,, | 7 | 10 |
| eter McKivett | • • • • | ••• | | " | | • • • | | ,, | 7 | 10 |
| Villiam Henry Dickir | nson | | | " | • • • | • • • | | ,, | 7 | 10 |
| ohn Coates | | • • • | | " | • • • | ••• | • • • | 77.1" | 7 | 10 |
| aurence Keelan McM | | • • • • | ••• | " | • • • • | • • • | ••• | February | 28 | 10 |
| ames Edward Pascel ionel Stanhope Daw | | • • • | ••• | " | • • • • | • • • | • • • | " | 28 28 | 10 |
| llfred Alexander Ged | _ | ••• | • • • | " | • • • | ••• | • • • | " | 28 | 10 |
| ohn Alexander Sparr | | • • • • | ••• | ", | ••• | ••• | | " | 28 | 10 |
| Ienry Norrish Maund | | | ••• | , , | | ••• | | " | $\frac{28}{28}$ | 10 |
| leorge William Barna | | | | ", | | ••• | | ,,, | 28 | 10 |
| ohn Dudley Holmes | | | | " | | | | ,, | 28 | 10 |
| lbert Edwin Martin | | • • • | | " | | • • • | | ,, | 28 | 10 |
| ohn Murray | ••• | • • • | | " | • • • | ••• | | " | 28 | 10 |
| eorge Watt McRae | | ••• | • • • | " | • • • | ••• | • • • | " | 28 | 10 |
| rthur James Denmes | | ••• | ••• | " | ••• | ••• | ••• | " | 28 | 10 |
| lobert May Watson | Iv Wieka | ••• | ••• | " | ••• | ••• | . ••• | " | 28 | 10 |
| Iarold Bulmer Priest | | • • • • | ••• | " | ••• | ••• | ••• | " | $\frac{28}{28}$ | 10 |
| rthur de Somrie Pow Villiam Thomas Dinn | | | • • • | " | ••• | ••• | ••• | " | 28 28 | 10 |
| ohn Paterson | | • • • • • | ••• | " | | ••• | | " | 28 | 10 |
| lexander Caithness | | ••• | | " " | ••• | ••• | ••• | " | 28 | 10 |
| Oonald Henry | ••• | ••• | ••• | " | ••• | ••• | ••• | " | 28 | 10 |
| | | | | l " | | | | " | 28 | 10 |
| Ternon Tennyson Tor | ıgs | | | " | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 20 |) IO |

No. 12.—RETURN of FIRST-CLASS STATIONARY-ENGINE DRIVERS—continued.

| Thomas James Evans | Name of I | Person | Lei Saara a⊊ | 41.5 | Class | of Certificate | p au 9 % | Date of Is | sue. | No. |
|---|-------------------------|--------|--------------|---------|--|----------------|-----------------|--|------|------|
| Thomas James Evans | | | | - | | | | 1907. | | |
| Thomas James Evans 28 103 Harold Tracy Willis 28 103 James William Atkinson 28 103 Jeremiah Callaghan 28 103 James Carruthers, jun. 28 104 John Currie 28 104 John Mearns Davidson 28 104 William Reginald Hudson 28 104 Charles Alexander Kirkwood 28 104 James Miller 28 104 William Alexander More 28 104 Henry James White 28 104 Robert Allan Kell March 22 104 William James Lane 22 104 Edward Joseph Williams 22 104 Thomas Beverley Rutter 23 105 Edward Robert Simpson 22 106 | William Sasse | ••• | | | | stationary, | , com- | February | 28 | 103 |
| Harold Tracy Willis 28 103 James William Atkinson " 28 103 Jeremiah Callaghan " 28 103 James Carruthers, jun. " 28 104 John Currie " 28 104 John Mearns Davidson " 28 104 William Reginald Hudson " 28 104 Charles Alexander Kirkwood " 28 104 James Miller " 28 104 William Alexander More " 28 104 Henry James White " 28 104 Robert Allan Kell " March 22 104 William James Lane " 22 104 Edward Joseph Williams " 22 104 Thomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | 701 . T | | | | | | | | 00 | 100 |
| James William Atkinson " 28 103 Jeremiah Callaghan " 28 104 James Carruthers, jun. " 28 104 John Currie " 28 104 John Mearns Davidson " 28 104 William Reginald Hudson " 28 104 Charles Alexander Kirkwood " 28 104 James Miller " 28 104 William Alexander More " 28 104 Henry James White " 28 104 Robert Allan Kell " 28 104 William James Lane " 22 104 Edward Joseph Williams " 22 105 Phomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | | | | | | | | ! " | | 1 |
| James Carruthers, jun. | | | ••• | | c # 250 *** | *** *** | | P | | 1 |
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| John Currie " 28 104 John Mearns Davidson " 28 104 William Reginald Hudson " 28 104 Charles Alexander Kirkwood " 28 104 James Miller " 28 104 William Alexander More " 28 104 Henry James White " 28 104 Robert Allan Kell " March 22 104 William James Lane " 22 104 Edward Joseph Williams " 22 105 Thomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | | | | | ,, | *** | | | | 103 |
| John Mearns Davidson " 28 104 William Reginald Hudson " 28 104 Charles Alexander Kirkwood " 28 104 James Miller " 28 104 William Alexander More " 28 104 Henry James White " 28 104 Robert Allan Kell " March 22 104 William James Lane " 22 104 Edward Joseph Williams " 22 105 Thomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | | | | • • • • | ,, | | | , | | 1040 |
| William Reginald Hudson " 28 10- Charles Alexander Kirkwood " 28 10- James Miller " 28 10- William Alexander More " 28 10- Henry James White " 28 10- Robert Allan Kell " March 22 10- William James Lane " 22 10- Edward Joseph Williams " 22 10- Thomas Beverley Rutter " 22 10- Edward Robert Simpson " 22 10- | John Currie 💎 🐪 🦠 | | | | ,, | * * • • • | | , | 28 | 104 |
| Charles Alexander Kirkwood " 28 10 James Miller " 28 10 William Alexander More " 28 10 Henry James White " 28 10 Robert Allan Kell " March 22 10 William James Lane " 22 10 Edward Joseph Williams " 22 10 Thomas Beverley Rutter " 22 10 Edward Robert Simpson " 22 10 | | | | | ,, | • • • | | weifið,, er 🗀 | 28 | 104 |
| Charles Alexander Kirkwood " 28 104 James Miller " 28 104 William Alexander More " 28 104 Henry James White " 28 104 Robert Allan Kell " March 22 104 William James Lane " 22 104 Edward Joseph Williams " 22 105 Thomas Beverley Rutter " 22 106 Edward Robert Simpson " 22 106 | William Reginald Hudsor | 1 | • | | ,, | | | ce 174, | . 28 | 104 |
| James Miller " 28 104 William Alexander More " 28 104 Henry James White " 28 104 Robert Allan Kell " March 22 104 William James Lane " 22 104 Edward Joseph Williams " 22 105 Thomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | Charles Alexander Kirkw | ood | ••• | | ,, | | | | 28 | 104 |
| William Alexander More " 28 104 Henry James White " 28 104 Robert Allan Kell " March 22 104 William James Lane " 22 104 Edward Joseph Williams " 22 105 Thomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | James Miller | | ••• | | | | | | 28 | 104 |
| Henry James White """ 28 104 Robert Allan Kell """ March 22 104 William James Lane """ 22 105 Edward Joseph Williams """ 22 105 Thomas Beverley Rutter """ 22 105 Edward Robert Simpson """ 22 105 | William Alexander More | | | , | | | | '' | 28 | 104 |
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| William James Lane " 22 104 Edward Joseph Williams " 22 105 Thomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | | | | | • | | | | | 1048 |
| Edward Joseph Williams " 22 108 Thomas Beverley Rutter " 22 108 Edward Robert Simpson " 22 108 | | | | | " | | | | | 1049 |
| Thomas Beverley Rutter " 22 105 Edward Robert Simpson " 22 105 | | | - | | . " | | | | | 1050 |
| Edward Robert Simpson | | | | | " | | | | | 105 |
| | Edward Bohert Simpson | | | | ,, | | | A STATE OF THE STA | | ! |
| tienty furner | | | | | " | | | 8 4 4 | | |
| | tenry rurner | ••• | ••• | • • • • | ,, | | | " | 44 | 1000 |

No. 13.—Return of Second-class Stationary-engine Drivers to whom Certificates of Competency have been granted from the 1st April, 1906, to the 31st March, 1907.

| Name of Person. | | | Class | of Certif | leate. | Date of Issu | 1e. | No. |
|----------------------------------|---------|-------|-------------------|-----------|-------------|---|------------|---------------------|
| | | | | | | 1906. | | |
| Charles Huckstep | ••• | ••• | Second - c | | stationary, | April | 2 | 2177 |
| Alexander Robinson | | | competer Ditto | 7, | , ž., | att. i e | 2 | 2178 |
| William Knox Henderson | | ••• | | • • | ar D | " | | 2181 |
| Eli Alfred Jones | ••• | | <i>"</i> | • | 5. 9 | " | | 2182 |
| Archibald Douglas McAllister | | | " | • | | " | | 2188 |
| John Hamilton Ferguson Reid | | | " … | • | | " | | 2184 |
| Nicholas Curnow | | ••• | " | • | | " | | 2185 |
| Ralph Mordaunt | ••• | ••• | " | • | 1 4 T | " | | 2186 |
| • | • • • • | ••• | " | • | | " | | 2180 |
| James Hilton | • • • | ••• | " … | | ••• | + "" | | 2188 |
| Robert Gardner | ••• | ••• | ,, | • | | " | | |
| John Larmer | • • • | ••• | ,, | • | | " | | 2189 |
| John Henry Keddell | • • • | | ,, | • | | . " | | 2190 |
| William Wong Gye | • • • | • • • | ,, | | ••• | . # | | 2191 |
| Robert Rockliff Bretherton | * | ••• | ,, | • | idanide '' | J | | 2192 |
| William Campbell | • • • | ••• | ,, | | | " | | 2193 |
| Mostyn Aldborough Fleming | • • • | | ,, | | | ,, | | 2194 |
| Hugh McGlinchie | | ••• | ,, | | | ,, | | 2195 |
| Charles Frederick William Tizard | • • • | ••• | ,, | | | ,, | | 2196 |
| Charles Williams | | | ,, | • | A A W | - " | | 2197 |
| James Raitt | | | " | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | $2 \mid :$ | 2198 |
| Henry Kitto | | ••• | ,, | 2 4 4 | | ,,, | 2 : | 2199 |
| John Robinson | | | ,, | | | | 2 | 2200 |
| David James Robertson | | | ,, | | | <u>.</u> | 2 | 2201 |
| Alfred William Milburn | | | ,, | | 5.10.0 | L - " | | 2202 |
| Arnold Nordmeyer | | ••• | | | 4 200 | <u>"</u> | 2 | 2203 |
| Alexander Thomson | | | " | • | | " . | | 2204 |
| Tamas Walt | ••• | | " | • | . 783 | X . " | _ , . | 2205 |
| mi O II asking | ••• | ••• | " | | 23.5 | M. 2" | | 2206 |
| Allan Crombie | • • • • | ••• | " | • | | 110 /7 1 / 1 TE | | 2207 |
| TT -13 Tiderand Onlenger | ••• | •• | ,, | • | 78 W. | 12 1 C. 1 C. 1 C. 1 | | 2208 |
| | | ••• | ,, | • | | " | | 2209 |
| Andrew Aitken | ••• | ••• | ,, | | / 19 | 37022 7 | | $\frac{2209}{2210}$ |
| James McPherson | •:• | ••• | <i>"</i> , ··· | • | ••• | | | 2211 |
| Matthew Todd | • • • | ••• | ,, | • | | airi" | | |
| Edward Searle | • • • | • • • | ,, | • | •• | of water | | 2212 |
| Harry Adams | ••• | ••• | , | • | | " | | 2213 |
| Charles Stuart Mackintosh | • • • | ••• | " … | • | | //serence | | 2214 |
| Alexander Peddie | | ••• | ,, | • | | II | 2 | 2215 |

No. 13.—RETURN of SECOND-CLASS STATIONARY-ENGINE DRIVERS—continued.

| Name of 1 | Person. | | *** | Class of Certificates | | | | Date of Issue. | |
|---|----------|-------------|---------|------------------------------|---------------|-------------|---------|---------------------------------------|---|
| Andrew Rennie | | | | Second - class competency | | stationary, | | 1906. April | 2 |
| ohn Brown | ••• | ••• | • • • | | ·· | | | · · · · · · · · · · · · · · · · · · · | 2 |
| rthur Beechy Rooney | | ••• | ••• | ,, | | | | - ,, | 2 |
| enry James Baillie | | ••• | ••• | ". | •• | , , | • • • • | | 2 |
| Villiam White | • • • | • • • | • • • | | • • | • • • | • • • | " | $\frac{2}{2}$ |
| rthur Ernest Tyer | ••• | ••• | • • • • | | •• | • • • | • • • • | " " | 2 |
| imes Webb | • • • | • • • | • • • • | ,, | • • | ••• | • • • | • " | $\frac{2}{2}$ |
| yril Alexander Gibson | • • • | • • • | | . " | | ••• | ••• | " " | $^{2}_{^{2}}$ |
| rancis Robert Wilson amuel MacDonald Bow | ••• | • • • | • ••• | | •• • | *** | | " | 2 |
| owell St. Clair William | - | • • • | ••• | | •• | | ••• | May | 15 |
| obert Cameron | | | | . " | | | | · . • | 15 |
| lenry James Cave | | ••• | | i " | •• | | | " | 15 |
| euben Hutchinson | | ··· | | | •• | | | " | $\overline{15}$ |
| dward Basil Jones | ••• | • • • | | : | | | | ,, | 15 |
| ohn Black | ••• | • | | i i | | | | 1, | 15 |
| rnest Edward Harrison | | | | ļ | •• | | | " | 15 |
| dward Parker Little | | | | " . | •• | ••• | | , | 15 |
| ohn Toms | • • • | • • • | | ,, , | | | | " | 15 |
| lfred Charles Baigent | | ••• | ••• | " . | •• | ••• | • • • | " | 15 |
| rnest Henry Kenyon | • • • • | | • • • | | • • | ••• | • • • | " | 15 |
| obin Henry Thomson | • • • | • • • • | • • • | " . | •• | • • • | • • • | <i>"</i> | 15 15 |
| homas Atkins eorge Archdale Beer | ••• | ••• | | 7 | V 15 1 | | . ••• | :" - | 15 |
| Laurice Bridger | • • • • | • • • • • • | ••• | " | : : | ••• | •,•• | . ". | 15 |
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| eorge Henry McDonald | | | | | | | | " | 15 |
| ohn Prestney | ••• | | | 1 " | | | | ,,, | 15 |
| illiam Richard Read | | • • • | | ,, . | | | | " | 15 |
| ohn Milne | ••• | **** | | · " . | • • | • • • | | " | 15 |
| lbert Johnstone | • • • | ***. | | ,, . | •• | | | ,, | 15 |
| eorge Frederick Monk | • • • | • • • | ••• | ,, . | •• | | • • • | " | 15 |
| illiam Henry Williams | . | • • • • | | ,, | •• | | | " | 15 |
| rank Stace | • • • | ••• | ••• | " . | •• | ••• | • • • | ,, | 15 |
| dward Gingell | ••• | • • • • | ••• | ł | •• | ••• | | " | 15 15 |
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| eorge Hunt rthur William Everiss | ••• | ••• | | | •• | ••• | • • • • | " | 15 |
| eorge Crossley Firth | ••• | • • • • | | | •• | | | " | 15 |
| enneth McDonald | | | | " . | | | | , <u>"</u> | 15 |
| eonard Sydney Barrell | ••• | ••• | | , , | | ••• | | ,, | 15 |
| orman Henry McLach | | ••• | | 1 | | | | ,,, | 15 |
| arold George Cave | ••• | | , | 1 | | • • • • | | ,, | 15 |
| ubrey Noel Thomas | ••• | | | " . | •• | | | " | 15 |
| rederick Augustus Brai | nble | | ••• | " | •• | • • • | • • • | " | 15 |
| lenry Southon | • • • | | • • • | , , | •• | | • • • | ,, | 15 |
| tephen Foley | ••• | • • • | ••• | ,, | • • | • • • | • • • | n. | 15 |
| hilip Henry Best | ••• | ••• | • • • | " | • • | *** | • • • | * " | 15 |
| Villiam Arthur Tomlins | | • • • | ••• | " / | •• | • • • | • • • • | " | 15 15 |
| alph Leslie Price | ••• | ••• | ••• | | •• | | ••• | " | 15 |
| arry Glover Tilliam John Brown | • • • | ••• | *** | | •• | | • • • | " | 15 |
| arles Peterson | ••• | | | . *. | • | ••• | | " | 15 |
| eorge Maxwell Valenti | | | | "·· | | | | ,, | 15 |
| narles Leonard Amyes | • | | | i ": | •• | | ••• | " " | 15 |
| narles Buckett | | | | | •• | | | " | 15 |
| arles Thomas North | • • • | | | 4 | •• | | | | 15 |
| alter Geoffrey Thomas | | • • • • | | <i>"</i> · · | | | | " | 15 |
| obert May Watson | ••• | | | ,, | •• | | ••• | " | 15 |
| bert Charles Bairstow | ••• | • • • • | | ,, | •• | ••• | • • • | - 11 | 15 |
| mes Carr | • • • | • • • | ••• | ,, | •• | ••• | • • • | " | 15 |
| illiam Row Frost | . • • • | ••• | ••• | 1 " | •• | • • • | • • • | " . | $\begin{array}{c} 15 \\ 15 \end{array}$ |
| imes Sharp | ••• | • | ••• | . ", | • • | • • • | • • • | " " | $\frac{10}{15}$ |
| Villiam Orr Smellie harles David Taylor | • • • | • • • • | | | •• | *** | | " | $\frac{15}{15}$ |
| Janes David Taylor | • • • • | • • • • | ••• | " . | •• | ••• | • • • | " | 15 |
| obert Bird | | | • • • | ,, . | | | | - 11 | 100 |

No. 13.—RETURN of SECOND-CLASS STATIONARY-ENGINE DRIVERS—continued.

| Name of Person. | | | | Class of Certificate. | | | | Date of Issue. | | No. |
|--|-------|---------|-------|---------------------------------------|---------|-------------|---------|----------------|-------------------|--|
| ames Dalziel Brownlie, j | un. | | | Second - class | | stationary, | | 1906. | 15 | 228 |
| . • | | | | con | petency | | • • | | ٠,٠ | |
| Alfred James Challis Dliver Fraser | ••• | • • • | ••• | Ditto | ••• | ••• | ••• | " | 15 15 | $\begin{vmatrix} 22 \\ 22 \end{vmatrix}$ |
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| Valter William Tasman I | | ••• | | ", | ••• | | ••• | ", | 15 | 22 |
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| ames Gilbert Ward | | ••• | | # | ••• | | • • • | ,, | 15 | 22 |
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| homas Edward Chandler | | ••• | | " | | | | ", | 14 | 25 |
| rederick Ben | ••• | | | ,, | | | | ,, | 14 | 28 |
| rederick William Smith | ••• | • • • | | " | | | | August | 1 | 23 |
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| harles Macaffer Simson | | ••• | | " | ••• | | | " " | $\tilde{1}$ | 28 |
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| Vilfred Samuel Marshall | | | | " | | ••• | | " | 1 | 23 |
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| ohn Arthur Hurley eorge Samuel Ma so n | ••• | ••• | ••• | " | ••• | ••• | ••• | " | 20 | 23 |
| lexander McQueen | | ••• | | " | ••• | | ••• | ", | 20 | 28 |
| ames Nicholson | | ••• | ` | " | ••• | ••• | | , ,, | 20 | 28 |
| Valter Charles Perry | ••• | | | i, | | ••• | | ,,, | 20 | 23 |
| homas Dorsey Suddaby | ••• | ••• | • • • | · · · · · · | ••• | ••• | ••• | ,, | 20 | 23 |
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No. 13. - RETURN of SECOND-CLASS STATIONARY-ENGINE DRIVERS -- continued.

| Name of Peragna Bagge 1 and 3 | | | | Class of Ce | Date of Issue. | | |
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| | | | | · · · · · · · · · · · · · · · · · · · | 1906. | | |
| Irnest Francis Smith granditate | zerili - Villesias | | | d - class | stationary, | August 2 | 20 |
| Villiam Walker | ••• | O. 1 | Ditto | ··· , , | ••• | 1 | 30 |
| ames William Cornwall | ••• | ••• | ,, | *** | | 1 " | 30 |
| lrnest Dean | *** | ••• | u. | ••• | *** | 1 " | 20 |
| atrick Joseph Walsh | ••• | | " | | • | 1 : " . | 30 |
| leorge Christiansen | ••• | ••• | <i>u</i> . | *** | asmiellion. | 1 " | 20 |
| homas Ross | | ••• | " | | ••• | l " | 20 |
| ohn Thomas Wylie | ••• | • • • • | " | ••• | *** *** *** | | 100 |
| ohn Ryan | ••• | • • • | " | | 198 C. C. 2011 | | 20 |
| Villiam Robert Hopcroft | ••• | • • • | " | ••• | *** | . " | 20 |
| Ierbert William Ingram | ••• | ••• | ₩. | *** | ••• | | 10 |
| Iarry Arthur Foote | ••• | | " | *** | ••• | . " | 20 |
| oseph Johnston Young Graham Idward James Hardman | ••• | • • • • | " | *** | *** |] ຶ່ | 80 |
| rchibald Henderson | • • • | ••• | " | | *** | . " | 0 |
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| ames Henderson Villiam Murray | ••• | • • • | " | ••• | ••• | l " | 20 |
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| ranz Edwin James Zimmerman | | | <i>u</i> . | ••• | ••• | | 0 |
| lerbert John Watson | ••• | • •,• | " | ••• | ••• | 1 .4 | 30 |
| amuel Carter | ••• | ••• | .11 | | ••• | | 0 |
| obert White Glentworth | ••• , , | ••,• | " | ••• | ••• | , , , | 0.0 |
| oseph Hamill | ••• | ••• | 17. | ••• | ••• | . " | 0 |
| Michael Hersey King | ••• | ••• | " | ••• | *** *** / * * * * * * * * * * * * * * * | . " | 10 |
| Ians Jensen Kjoller | ••• | • • • | , U | | ••• | | 0 |
| Irnest Frederick Huse | ••• | • • • | ." | • • • • | · · · · · · · · · · · · · · · · · · · | 1 " | 30 |
| Charle McQueen | ••• | ••• | . # | *** | *** *** | 11. | 20 |
| rancis Robert Nichols ohn Fowler | ••• | | . 11 | *** | ••• | ່ " | 20 |
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| Villiam Hughson | ••• | •,•• | , " | | *** | ີ | 20 |
| Ioko Karatau | ••• | ••• | .]* | | ••• | ຶ່ງ | ŏ |
| homas Mitchell | | • • • • | , " | | | , p | 0 |
| Villiam John McCammon | ••• | • • • • | " | ••• | *** | " 0 | ŏ |
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| andrew Smith | ••• | | .," | ••• | ••• | 0 | 10 |
| Charles Timms | ••• | , | " | ••• | *** #20.* * | | 8 |
| Iichael Wall | ••• | ••• | n | ••• | | ,, 2 | 80 3 |
| ohn Thomas Barnett Wardell | ••• | • • • | J.H | ••• | A ABBRILL TO | " 2 | 30 3 |
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| Valter John Lawry Barnett | ••• | ķ.•• | " | ••• | | 1 " | 30 |
| Chomas Garmonsway Bucroft | • • • | | . " | ••• | ••• | · · · · · · · · | 30 |
| Villiam Robert Bisman | ••• | | " | ••• | ••• | . " | 0 |
| eonard Hume Browne | ••• | *** | . " | *** ,,. | ••• | ,, 2 | 7 A F |
| Villiam Brydon | ••• , | | .11 | ••• | | f. " | 0 |
| Senjamin Arthur Craig | ••• | ··· | . " | ••• | ••• | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 100 |
| rederick Herbert Dahlberg | ••• , | *** | 1 1 | ••• | ••• | 1 " | 20 |
| ohn Dunn | *** | *** | . " | *** | ••• | 1 " | 10 |
| Villiam Thomas Guild lfred Edward Harris | *** , | | ." | *** | ••• | " 0 | 20 |
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| Villiam Payne | *** | | . 11 | ••• | ••• | 0 | |
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| Sharles Frederick West | ••• | ••• | " | | | l | 8 |
| lifton Richard Holyoake | | ••• | " | * * * * × * * p | *** | . " | 8 |
| Alfred Peter Fulford | | ••• | . " | | ••• | 1 | 8 |
| Henry Reginald Hewetson Robin Isaac | | ••• | . , # | ••• | in the second se | _ | 8 2 |
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No. 13.—RETURN of SECOND-CLASS STATIONARY-ENGINE DRIVERS—continued.

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No. 13:—RETURN of SECOND-CLASS STATIONARY-ENGINE DRIVERS—continued.

| Name of Po | erson. | | | • | Class of | Certificate. | | Date of Iss | ue. |
|------------------------|---------|---|-------|---------------|----------|--------------|---------|---------------------------------------|----------------------|
| alter Ronaldson | ••• | ••• | | | | stationary | , com- | 1907. January | 7 |
| ichard Stanford | | | | pete Ditto | | | | February | 28 |
| nomas Owen Roberts | | ••• | | " | ••• | ••• | | , ,, | 28 |
| O1 | | | | " | ••• | ••• | | . 11 | 28 |
| | ••• | | | " | | • • • | | ,, | 28 |
| hn Cormack Melrose | • • • | ••• | 1 | ., | | ••• | | ,, | 28 |
| atthew Dyer | ••• | ••• | ••• | " | ••• | ••• | | ,, | 28 |
| ederick Lewis Eustige | ••• | ••• | •••• | " | | ••• | | ,, | 28 |
| thur Harry Hancock | ••• | ••• | ••• | " | | ••• | | " | 28 |
| mes Horsfall | ••• | ••• | ••• | " | ••• | ••• | | ,, | 28 |
| mes Mockridge | ••• | ••• | ••• | " | | ••• | | " | 28 |
| enry Charles Guthrie | ••• | ••• | ••• | " | ••• | ••• | | ,,, | 28 |
| eslie William Letton | ••• | ••• | ••• | " | | ••• | | ,, | 28 |
| rederick Bignell | • • • | ••• | ••• | " | ••• | ••• | | ,, | 28 |
| Villiam Edment Kennedy | | ••• | ••• | " | ••• | ••• | | ,, | 28 |
| rederick Green Shirley | | ••• | ••• | " | ••• | ••• | | ,, | 28 |
| thur Whelham | ••• | ••• | ••• | " | ••• | ••• | ••• | ", | 28 |
| uke Revely Hayward | ••• | *** . | | " | | ••• | ••• | , , , , , , , , , , , , , , , , , , , | 28 |
| Villiam Henry Barker | ••• | ••• | | " | ••• | ••• | ••• | " | 28 |
| harles Hunt | ••• | ••• | ••• | " | ••• | ••• | | ,, | 28 |
| canley Bailey Watson | ••• | ••• | ••• | " | ••• | ••• | ••• | ,, | 28 |
| eorge Stacey | • • • | ••• | ••• | " | ••• | ••• | ••• | ,, | 28 |
| ohn Cullum | ••• | ••• | ••• | " | | ••• | | ", | 28 |
| onald Anderson Lawrie | | • • • | ••• | " | | ••• | | ,, | 28 |
| Villiam Stephens | ••• | ••• | ••• | " | | ••• | | " | 28 |
| ercival Barker | • • • | ••• | ••• | " | • • • | ••• | | ,, | 28 |
| eorge Henry Woskett | ••• | ••• | ••• | " | | ••• | | ,, | 28 |
| Villiam John Young | ••• | ••• | ••• | " | ••• | | | ,, | 28 |
| eter Wyatt | T | ••• | ••• | " | ••• | | ••• | ,,, | 28 |
| homas William Doyle N | | • • • | ••• | " | ••• | ••• | | ,,, | 28 |
| ohn Reid | ••• | ••• | ••• | " | ••• | ••• | ••• | ,, | 28 |
| rchibald Johnstone | ••• | ••• | ••• | " | ••• | ••• | | ,,, | 28 |
| arold Charles Binns | ••• | • • • | ••• | " | | ••• | ••• | , , | 28 |
| gerton Green | • • • | ••• | ••• | " | | ••• | | ,, | 28 |
| rancis Berriman Kelty | ••• | ••• | ••• | . " | ••• | | ••• | ,, | 28 |
| obert Mackie | ••• | ••• | ••• | " | • • • | | ••• | , , | 28 |
| esse Mead | ••• | ••• | ••• | " | ••• | ••• | | ", | 28 |
| ohn Stanley Thompson | ••• | *** | ••• | " | • • • • | ••• | ••• | ", | 28 |
| eter Nicholson | ••• | ••• | ••• | " | ••• | ••• | | ", | 28 |
| rthur Henry Bradford | • • • | ••• | • • • | " | ••• | • • • | | . " | 28 |
| onald Cameron | • • • | ••• | • • • | " | ••• | ••• | ••• | | 28 |
| Iugh Donnelly | ••• | ••• | ••• | " | ••• | ••• | ••• | " | 28 |
| rchibald Kennedy | . • • • | ••• | • • • | " | • • • | ••• | ••• | " | 28 |
| ohn Cartsburn Ritchie | • ••• | ••• | ••• | " | • • • | ••• | ••• | " | 28 |
| ames Skyrme | n | | ••• | " | ••• | ••• | ••• | " | 28 |
| Iorace Percival Crouch | Kothw | ell | ••• | " | ••• | ••• | ••• | " | 28 |
| Valter James Fluck | • • • | ••• | ••• | ." | ••• | ••• | • • • • | March | 22 |
| ohn Treneman | • • • • | ••• | ••• | " | ••• | ••• | • • • • | 1 | $\frac{22}{22}$ |
| dward Ernest Colclough | n | ••• | ••• | " | ••• | ••• | ••• | " | 22 |
| homas Blackie | • • • | ••• | ••• | ." | ••• | ••• | ••• | " | 22 |
| oseph Kitto | • • • | ••• | • • • | 1 | ••• | ••• | ••• | 1 | 22 |
| lobert Smith | • • • | ••• | ••• | " | ••• | ••• | ••• | 1 | $\frac{22}{22}$ |
| eorge Ferguson | • • • | • • • | • • • | | ••• | ••• | . ••• | | $\frac{22}{22}$ |
| Villiam Smith | • • • | • • • | | į | • • • | • · · | ••• | i | $\frac{22}{22}$ |
| lexander Ross | | • • • | ;·· | " | | *** | • • • | | $\tilde{2}\tilde{2}$ |
| ohn Duncan | • • • | ••• | ••• | " | • • • | • • • | • • • • | | 22 |
| eorge Henry Hannay | ••• | | • • • | " | • • • | • • • | • • • • | | $\frac{22}{22}$ |
| lexander Miller | ••• | | • • • | . 11 | ••• | ••• | | | 22 |
| homas Wheeler | ••• | ••• | ••• | " | ••• | ••• | ••• | | $\frac{22}{22}$ |
| ohn Balton | • • • | • • • | • • • | " | ••• | ••• | ••• | | 22 |
| ames Courtney Falcone | r | ••• | • • • | " | ••• | • • • | ••• | 1 | 22 |
| Samuel George Churchil | l | ••• | • • • | " | ٠ | ••• | • • | . " | |
| Thomas William Sander | s | | | " | ••• | ••• | •• | " | 22 |
| Philip David Smith | | • | | ,,, | ••• | ••• | • • | . " | 22 |
| William Shore | | • • • | ••• | . " | ••• | ••• | •• | . " | 22 |
| Samuel Hoy | | | | . ,,, | | ••• | • • | . " | 22 |
| William James Richards | | | | , ,, | ••• | | | . " | 22 |
| | | | | | | | | | 22 |

No. 14.—Return of Engineers who were examined and passed for Certificates of Competency during the Year ended the 31st March, 1907.

| | during the | Year ended the 31st Ma | rch, 1907. | |
|--|------------|---|--|------------------------------------|
| Name of Person | | Rank. | Class for which examined. | Date of Examination. |
| Robert Drysdale Jack | ••• | First-class engineer | Foreign trade | 3, 4, 5 April, 1906 |
| Harry Francis Blackie | | ,, | , , | 23, 25, 26 April, " |
| Arthur Charles Carman | | . " | " | 1, 2, 3, 4, 5, |
| m D 1 M3 | | ! | | 6, 7 May, |
| Thomas Douglas Milne | | " | " | 5, 6, 7 June, " |
| John Hamilton McLean William Wood Wilson | | " | " | 7, 8, 9 June, " 26, 27, 28 June, " |
| Andrew Sterling Forreste | | " " | | 2, 3, 4 July, " |
| Allan Hugh Hunter | ••• | " " | " | 23, 24, 27 July, " |
| Andrew Robert Swann Cr | uickshank | ,, | " | 3, 4, 5 Sept., " |
| John Heath Johnston | | " | " | 1, 2, 3 October, " |
| Frederick William Howel | | Second-class engineer | " | 23 April, " |
| Sidney Black Crawford | ••• | " | " | 25, 26 June, " |
| Percy Edmund Brewer James John Jack | | | " | 3, 4 Sept., " 3, 4 Sept., " |
| Ernest Edward Low | | " | " | 31 October, |
| Angus Charles McInness | | " | " | 31 October, " |
| James Anderson | | ,, | ,, | 19, 21 Dec., " |
| Wilson George Blackwell | | 1 | " | 3, 4, 5 January, 1907 |
| Andrew Craig | ••• | Third-class engineer | " | 2 April, 1906 |
| Isaac Harold Plimmer | M | " | , " | 20 April, " |
| Angus William Cameron | | " | " | 6 April, " |
| Alexander Inverarity Lawrence Godfrey Tuke | | " | | 26 April, " 1 May, " |
| Albert Walker | ••• | | . " | 1 Max |
| William Walter Spargo | ••• | | " | 1, 3 May, " |
| Andrew Smart Young | · | i e | . " | 1, 3 May, " |
| Lewis Emanuel Cassrels | | ,, | " | 1, 3 May, " |
| Henry Andrew Bower | ••• | " | " | 1, 3 May, " |
| Allan Leslie Gatland | | " | " | 1, 3 May, " |
| Arthur Russell Scott | ••• | <i>"</i> | " | 1, 3 May, " |
| Richard George Mackay David Theophilu s Gilmo u | ··· ··· | <i>"</i> | . " | 1, 3 May, " 4, 5 May, " |
| John Stewart | ••• | " | " | 1, 8 May, |
| John Hesp Burn | ••• | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ··· " | 5 June, " |
| Edgar William Andrews | | ,, | . " | 5 June, |
| Samuel Joseph Hodge | | | " | 5 June, " |
| Herbert Gillespie Macneil | ••• | <i>n</i> | " | 5 June, " |
| Thomas John Rothe | ••• | " | " | 5 June, |
| Cyril Hordern Macgeorge Cecil Willie Croll | | " | <i>n</i> | 25 April, " 13 June, " |
| Richard John Leslie Bron | nlev | · " | <i>"</i> | 2 July |
| George Timms | | . " | , , | 2 July, |
| Eric David Warren | ••• | . " | | 2 July, |
| George Sidney Connor | ••• | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 3 July, " |
| Charles Adam Michael Cu | ıningham | ,, | ,, | 10 July, |
| John Sidney Whittaker | ••• | " | " | 24 July, " |
| David William Shields R | | " | " | 27 July, |
| Charles William Thomso r James McBeath Calder | | " | . " | 1 August, " |
| | | " | " | 1 August, " 3 August, " |
| Stanley William Max Col | | | " | 6 Angust |
| Edmund Wimperis Joach | in | " " " | " | 6 August, " |
| Cecil Edwin Bryant | | " " " " " " " " " " " " " " " " " " " | · · · · · · · · · · · · · · · · · · · | 6 August, " |
| James Arthur Brown | | " | ,, | 6 August, " |
| James Reginald Armstron | g Black | " | n n | 6 August, " |
| William Frederick Camer | | · · | " | 6 August, " |
| Walter George Fraser Gordon Maxton Rennie | ••• | | " | 6 August, " |
| Stephen Collier | ••• | 1 | . " | 6 August, " 6 August, " |
| John Athol Nicol | ••• | " | . " | 6 August |
| Henry Louis Reeves | | | ", | 6 August, " |
| David William Bennie | ••• | | " | 11 August, " |
| Lawrence Keelan McMur | rich | " | " . | 3 Sept., |
| David Wilkinson | ••• | n | " | 11 Sept., ,, |
| Edward Harold Pengelley | 7 | · " | " | 3, 4, 5 Sept., " |

No. 14.—Return of Engineers who were examined and passed for Certificates of Competency-continueds

| | | COMPETENCY continued | សស់ស ៩ភាពមិល្ខេះ ក្រុស | - 331 |
|--|--------------------------------------|--|--|-----------------------------------|
| Name of Person | Tarabana si Tarabana si Kabara | Rank. | Class for which examined. | Date of Examination. |
| Honey Dustin | 100 m 100 m 100 m | mi : | | 0 4 5 9 4 1000 |
| Henry Dustin Paul Cuthbert Graham | राष हा केस ति। | Third-class engineer | Foreign trade | 3, 4, 5 Sept., 1906 |
| Frederick Walter Robinso | ··· | " | · · · · · · · · · · · · · · · · · · · | 3, 4, 5 Sept., " |
| Arthur Reginald Howe Fr | | " . | , | 3, 4, 5 Sept., " 3, 4, 5 Sept., " |
| William George Thomson | | " | . " | 14 Sont |
| Arthur Lister | ••• | ." | " */& | 20 Sept., " |
| Willam Mowatt | | " | , ,, | 25 Sept., " |
| | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | " " | 27 Sept., " |
| John William Nielsen | | ." | , , , , , , | 1 October, " |
| | ••• | ,, | 7 | 1 October, " |
| | | " | 4 · 4 | 1 October, " |
| Arthur Gretton Tomkies Frederick Henry Hopkins | ••• | ជាស្រី ស្រីស្រី ស្រីស្រី ស្រីស្រី ស្រី ស្រ | continue elem | 26 October, " |
| John Hambly Froom Nay | ior | " | . " | 26 October, " 29 October, " |
| Harry Cecil Heays | | ″ | ,,, " | 1 November, " |
| Frank Dunlop Malcolmson | | ," | | 5 November, " |
| T 1 TT TO 111 | ••• | " " | " " | 18 December, " |
| Frederick Alfred Whitaker | | , , , , , , , , , , , , , , , , , , , | " · · · · · · · · · · · · · · · · · · · | 3, 4, 5 January, 1907 |
| Henry Wooles Price | ••• | <i>"</i> | | 3, 4, 5 January, " |
| | | a. nigue ke ni sielika | " . | 3, 4, 5 January, " |
| Sydney Sellers | ••• | " | , " | 3, 4, 5 January, " |
| | ••• | ." | 10.71. N II V | 3, 4, 5 January, " |
| John Peter Burns Herbert Lukins | ••• | ." | · · · · · · · · · · · · · · · · · · · | 28 January, " |
| A., 41 D. h 4 D1 | ••• | " | " . S. | 2 February, " 5 February, " |
| T XX2:11: XAT:: | ••• | . " | " . | 5 February, " |
| T | ••• | " | | 1, 2 February, " |
| John Herman Hall Holm | | · # | " | 20 February, " |
| ייי או אויייין אויייין אויייין אויייין אויייין | ••• | ," ," | ", \$ | 2 March, " |
| Jack Echardt Whitten | ••• | " " | " · · · · · · · · · · · · · · · · · · · | 11 March, |
| | | " | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 20 March, " |
| William Lowrie Gray | •,•, | " | ,, | 20 March, " |
| William Edward James G | | D: " | , | 27 March, " |
| TR | ••• | River engineer | River trade | 4 April, 1906 |
| William Denham | ••• | " | , " | 11 April, " |
| George Andrews | ••• | " | " 🕬 | 25 April, " 1, 8 May, " |
| Chamina Anhlan Eller | ••• | ,, | " " " " " " " " " " " " " " " " " " " | 1, 5 May, " 1, 5 May, " |
| NOTE: 12 NAT - TO - 221 | ••• | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | " · · · · · · · · · · · · · · · · · · · | 1, 4 May, " |
| Henry French Ashcroft | ••• | ,, | "sa | 5 June. " |
| Edward McSweeney | | , | , , , , , , | 2 July, " |
| Charles Alexander Kirkwo | ood | ,, | Breusler " | L August, " |
| Peter George Kelly | ••• | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ,, | 3, 5 Sept., " |
| Harry Phillips | ••• | ,, | . " | 3, 5 Sept., " |
| Joseph Suffield Huston William Rowley Entwistle | | " | " | 1 October, " |
| Samuel Stevens | | ,, ,,, | and the state of t | 17 October, " |
| Ernest Thornley Lancaste | r | " | # | 30 October, " 5 November |
| Vincent Door Damaham | ••• | " | # ଓଞ୍ଚୈ•⊁ | 3 December, " |
| David Gilmour Stephens | | " | " | 4 December, " |
| D D. b 17.: | ••• | ,, | # ***** | 10 December, " |
| Gerard Edwin Sampson | ••• | ,, | , " HE " 466600 | 3, 4, 5 January, 1907 |
| Reginald Edward Jefferies | Scott | ,,, | " idilete | 3, 4, 5 January, " |
| John Martin 1917. | ••• | ,, | ,, | 3, 4. 5 January, " |
| James Berry | ••• | ,, | <i>"</i> ,., •••4 | 1 February " |
| Adam Gibson | Toothout | ,, | . Kult groß | 4 February, " |
| Robert Mann Williamson Charles Frederick Bell | | ,, | # 0008525 | 19 February, " |
| Leonard McCarthy | ••• | Marina angina drivor | | 4 March, " |
| Albert James Broad | ••• | Marine-engine driver | " , . •! . | 6 July, 1906 |
| Richard Clemens | ••• | " | " | 18 July, " 5, 7 January, 1907 |
| Leslie Claude Davies | ••• | First-class engineer | Sea-going | 2, 4 May, 1906 |
| 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | | (powered vessels | gg | <u>_</u> ,, |
| | • | other than steam) | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | |
| Thomas Stout Macgregor | | Ditto | " | 3, 4 Sept., " |
| William Stewart Lockhea | 1 | I a control of the co | | 26 October, " |

No. 14.—RETURN of Engineers who were examined and passed for Certificates of Competency—continued.

| Name of Person | ı . | | R | ank. | | Class for wh examined | | Date of Examin | nation. |
|--------------------------|-----------------|-------|---------------------------------|---------|---------|---|---------|----------------|---------|
| James Somerville | | ••• | Second-cl (power other tl | ed ve | ssels | Sea-going | • • • | 4 April, | 190 |
| William Henderson Murc | \mathbf{loch} | | Ditto | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | 5 April, | " |
| Phillip James Kunst | | | - " | | | ,, | | | " |
| Robert Gilmour Slade | | | ,, | • • • | | , ,, | | 2, 4 May, | " |
| Henry Paxton Hewson | | | ,, | | | ,, | | 12 June, | " |
| Arthur Marychurch | | | ,, | | | ,, | | | ,, |
| William Thwaites | ••• | | " | | ••• | " | | 3, 4 Sept., | " |
| William Richard Lockwo | od | | " | | ••• | " | • • • | 3, 24 Sept., | " |
| William Edward Plank | ••• | • • • | " | • • • | | " | | | " |
| James William Hamilton | • • • | • • • | " | • • • | • • • • | " | • • • | 1 October, | " |
| Henry Hughes | • • • | • • • | " | . • • • | •••• | " | • • • | 3 October, | " |
| William Munro Watt | ••• | • • • | " | • • • | ••• | " | • • • | | , ,, |
| Charles Alexander Kirkw | ood | • • • | " | ••• | ••• | " | • • • | 3 December | |
| David Bruce Murdoch | ••• | • • • | " | • • • | ••• | " | • • • | | |
| John Martin | • • • | • • • | " | • • • | • • • | " | • • • | 3, 4, 5 Januar | y, " |
| Cecil Gladstone Downey | | • • • | T3 " · | ••• | | D: ", 3 | | | |
| William Fowler Christie | ••• | ••• | Engineer vessels steam) | | | River trade | | 2 April, | 190 |
| John Thomas Fenwick | | | Ditto | | | | | 6 April, | |
| William Henry Edmund | Forwick | ••• | | ••• | ••• | " | • • • • | 6 April, | " |
| Alfred Jones | | | " | • • • | ••• | " | | 1, 4 May, | " |
| Allexander Fraser McCall | | ••• | " | • • • | • • • • | ". | | 2, 4 May, | " |
| William McKenzie Thom | neon | • • • | " | | ••• | 1" | | 2, 4 May, | " |
| Thomas Bishton Turley | рооп | | " | | | " | | 2, 4 May, | " |
| Robert Taylor | ••• | | " " | | | " | | 4, 7 May, | " |
| George Bailey Craven | | | " " | | | " | | 5 May, | " |
| John McKell Brown | | • • • | , " | | | " | | 5 May, | " |
| Anders Godfrey Nordling | | | ,,, | | | " | | 0 4 34 | " |
| * TT '11 | | | ,,, | | | <i>"</i> | | 2, 5 May, | " |
| Francis Joseph Rambaud | | | | | | | | 4 May, | " |
| Arthur Stephen Hyde | ••• | | ,,, | | | ,, | | 5 June, | ,, |
| William Alfred Bradley | ••• | | . ,, | | | ,, | | 2 July, | " |
| Charles David Graham | • • • | | ,, | | | ,, | | 2, 4 July, | ,, |
| Archibald John Thornicr | oft | | ,, | | | ,, | | 20 July, | ,, |
| Francis James Norris | | | ,,, | | | " | | 31 July, | ,, |
| Richard Lionell Kemp Te | easdale | | ,, | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | 2 August, | " |
| George Leonard Gregg | | |] " | | | " | | 8 August, | ,, |
| George Bennett | | | ,, | ••• | | " | | 3, 4 Sept., | ,, |
| William Thomas Goldie | ••• | • • • | ,, | | | " | | 3, 4 Sept., | " |
| Peter Pearson | ••• | | ,, | | | " | | 3, 4 Sept., | " |
| Standish Knyvet Alexand | ler | | " | | | " | | 3, 4 Sept., | ,, |
| James Henry Colquhoun | | • • • | ,, | • • • | | " | | 3, 4 Sept., | " |
| Edward Prior | • • • | | " | ••• | | " | | 3, 4 Sept., | " |
| Herbert Hunt | • • • | | ,, | | | " | • • • | 3, 4 Sept., | " |
| Louis Godfrey | | | ,, | • • • | | . " | | 3, 5 Sept., | " |
| Edward Coker | ••• | | " | | ! | . " | | 3 November | , ,, |
| Jessie Armour McKegg | ••• | • • • | , ,, | | | " | | 8 December, | |
| Eric Arthur Langley | ••• | | ,, | · | | " | • • • | 3, 4, 5 Januar | |
| William Moffatt | • • • | | " | • • • | ••• | ,, | ••• | 3, 4, 5 Januar | |
| Alfred William Redman | ••• | • • • | " | | ••• | " | | 3, 4, 5 Januar | |
| William David Ruthe | • • • | • • • | ,, | | | " | | 3, 4, 5 Januar | |
| Charles Staniland West | | | " | • • • | ••• | " | | 3, 4, 5 Januar | |
| Reginald Edward Jefferie | | • • • | " | | ••• | " | • • • | 3, 4, 5 Januar | |
| Robert Alexander Johnso | n | • • • | ,, | ••• | | 11 | ••• | 3, 4, 5 Januar | у, " |
| Oliver William Walter | • • • | | " | | • • • • | " | | 31 January, | " |

Total number of applicants, 224. Amount of fees, £195.
Failures to pass examination: 3 first-class engineers, 3 second-class engineers, 14 third-class engineers, 14 river engineers, 3 marine-engine drivers, 4 engineers (powered vessels other than steam, restricted limits): total, 41.

No. 15.—Return of Steamers and Oil-Engine Vessels surveyed during the Financial Year ended 31st March, 1907, with Particulars of Tonnage, &c.

| | ena | ed 31s | t Mar | | | TICULARS OF TONNAGE, | &C. | |
|--------------------------------|-------|---|---|--|--|--|--------------------|---|
| | | Tons Me | | 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 Steamers only. | Description of Machinery. | Screw. | Paddle. |
| Name of Vessel. | į | į. | er. | Bral Stral tha | Ste | Description of Machinery. | Berew. | raddie. |
| | | Gross. | Register. | ima all d] we | Roj For | , | | |
| | | ç. | Re | Nom of an p o | In of the of | | | |
| Admiral | | 121 | 82 | 28 | | Compound S. condensing | Single | |
| dvance (Auckland | | | ••• | 8 22 D H D | | High pressure | " | |
| dvance (Auckland huriri | • | 47 85 | $\frac{36}{31}$ | 30 B.H.P. 17 | 66 | Oil-engine Compound S. condensing | ,, | :: |
| huriri karoa | • • | 76 | 43 | 28 | 98 | ,, | , | |
| lbany | • • | 017 | 111 | 8 37 | • • • | High pressure Compound S. condensing | Single at | • • |
| lbatross | •• | 217 | 111 | 91 | ••• | Compound 5. condensing | each end | •• |
| lexander | •• | 377 | 184 | 72 | 307 | TT: -h | Twin | •• |
| lice (2) | •• | 28 | $\begin{array}{c} 3 \\ 21 \end{array}$ | 3] 10 B.H.P. | | High pressure Oil-engine | Single | |
| ntelope | •• | 18.8 | 14.16 | 2½ B.H.P. | | ,, | ,, | n 111 |
| ntrim orere Nelson) | •• | $\frac{60}{72}$ | 35 49 | $\frac{16\frac{1}{2}}{16}$ | 64 | Compound S. condensing | Single | Paddle. |
| otea (Auckland) | | 111 | 89 | 15 B.H.P. | | Oil-engine | ,, ., | •• |
| otea (Kaipara) | •• | 263 | 157 | 33 971 | 187 | Compound S. condensing Triple-ex. S. condensing | , | • • |
| panui rahura | | 243 1,596 | $\begin{array}{c} 134 \\ 771 \cdot 2 \end{array}$ | $\frac{27\frac{1}{2}}{145}$ | 1,726 | ripie-ex. S. condensing | Twin | |
| riel | | 17.28 | 12.9 | $2\frac{1}{2}$ B.H.P. | , | Oil-engine | Single | •• |
| tom | •• | 3443.9 | 1894.7 | $\begin{array}{c} 1 \\ 329 \end{array}$ | 2,450 | High pressure Triple-ex. S. condensing | Twin | • • |
| tua upouri | | 463 | 220 | 55 | 409 | " | ,, | • • • |
| waroa | •• | 344 | 210 | 62 | 450 169 | Compound S. condensing | Single | •• |
| aden Powell aroona | ••• | 194 136 | $\begin{array}{c} 92 \\ 78 \cdot 7 \end{array}$ | $\begin{array}{c} 30 \\ 24 \end{array}$ | 162 | Compound S. condensing | ,, | •• |
| eatrice | | 20 | 8 | 10 | •• | " | " | |
| en Lomond | •• | $\frac{46}{26}$ | 33 17 | 15 9 | ••• | High pressure | " | • • |
| lanche lenheim | | 150 | 85 | 28 | 210.6 | Compound S. condensing | , | |
| onnie Jean | | 7.6 | 5.7 | | | Oil-engine | , | |
| ravo ritannia | •• | $15 \\ 23 \cdot 4$ | $11 \\ 17.5$ | 5 B.H.P. 21 B H.P. | | ,, | " | |
| anopus | | 1,063 | 834 | 250 | 1,167 | Triple-ex. S. condensing | ,, | •• |
| anterbury harles Edward | •• | $\frac{.}{245}$ | 145 | $\begin{array}{c} 24 \\ 48 \end{array}$ | 201 | High pressure Compound S. condensing | Twin | • • |
| helmsford | :: | 122 | 79 | 24 | 64 | " | Single | |
| lansman | •• | 634 | 379 | 90 54 | 569 | Triple expansion | , | •• |
| laymore obar | | $\begin{array}{c} 210 \\ 158.8 \end{array}$ | 91 57·8 | 35 | • | Compound S. condensing | ,, | |
| olleen | | 19.6 | 14.7 | 2½ B.H.P. | •• | Oil-engine | g. ", ··· | ٠. |
| ondor | | 174 | 122 | 24 | •• | Compound S. condensing | Single at each end | • • • |
| orinna | | 1,279 | 820 | 141 | 1,067 | ,, | Single | •• |
| ountess | ••• | 189 | 84 66 | $\frac{28}{43}$ | i70 | " | , | • • |
| ygnet aphne (Hokitika) | ! | 124 | | 34 | | High pressure | ,, | :: |
| aphne (Thames) | | | | 2 | | ,, | ,, | • • |
| efender espatch (Bluff) | ••• | 189 35 | $\begin{array}{c} 117 \\ 24 \end{array}$ | 36 20 | 144 | Compound S. condensing | ,, | |
| olly Varden | | 31.4 | 19 | 30 B.H.P. | | Oil-engine | " | •• |
| oto | | $28.5 \\ 941$ | 19·4 488 | $\begin{array}{c} 13 \\ 92 \cdot 8 \end{array}$ | 549 | Compound S. condensing Triple expansion | Twin | |
| redge No. 350 redge No. 222 | | 1,225 | 500 | 120 | 528 | Compound S. condensing | , | |
| uchess | | 308 | 95 | 81 | 350 | Triple-ex. S. condensing | Single | ••• |
| ouco | | 130 99 | 26 53 | $\begin{array}{c} 60 \\ 24 \end{array}$ | 450 | Compound S. condensing | ,, | |
| lagle | | 219 | 138 | 70 | 265 | ,, | | Paddle. |
| cho | •• | 125 | $\frac{98}{4\frac{1}{4}}$ | 60 B.H.P. 6 | | Oil-engine High pressure | Twin Single | |
| dina ffort | ••• | 20 9 | 13.1 | 2·5 B.H.P. | | Oil-engine | Twin | |
| liza | | | | 3 11 | | High pressure Compound S. condensing | Single | •• |
| lsie | •• | 42 20 | $\begin{array}{c c} 22 \\ 15 \end{array}$ | 8 | | High pressure | ,, | |
| lsie Evans | | 7.8 | 5.8 | 20 B.H.P. | | Oil-engine | , | •• |
| mma Sims ndeavour | | 73 75·9 | 61 54·4 | 32 B.H.P. 30 B.H.P. | i :: | ,, | Twin Singl | •• |
| ndon | | | | 5 | 1 | Compound S. condensing | ,, | |
| nergy | ••• | 63.7 | $16.9 \\ 13.8$ | _ | 48 | Oil engine | ,, | •• |
| nterprise rin | | 18.4 | 13.8 | $\frac{2\frac{1}{2}}{3\frac{1}{2}}$ | :: | High pressure | , | • |
| rskine | | 126 | 98 | 35 | | Compound S. condensing | , | • • |
| xpress | | $\begin{array}{c c} 53 & \\ 45 & \end{array}$ | 36 32 | 25 10 3 | 92 | , , | ,, | :: |
| alcon | | | | 6 | | High pressure | , | |
| anny | ••• | 90 | 55 | 30 20 B.H.P. | 149 | Compound S. condensing Oil-engine | , | •• |
| erro ingal | • • • | 13·9 33 | $\frac{10.4}{22}$ | 20 B. H. P. 9½ | 48 | Compound S. condensing | ,, | , |
| reetrader | , | 132 | 94 | 50″ | | High pressure | " | Stern whee |
| ael annet | •• | 15 | 55 10 | $\frac{20}{12}$ | :: | Compound S. condensing | " | |
| annet | • • • | 23.6 | 17.7 | 5 B.H.P. | | Oil engine | , | |
| ertie | | 269 | 118 | 59 | 332 | Triple-ex. S. condensing | Twin | |

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

No. 15.—Return of Steamers and Oil-engine Vessels surveyed, &c.—continued.

| | | deasure- lent. | se-powel tmships Horse- Ships šteam. | Horse- Home- lers and | | | |
|---|--|---|--|---|--|--|----------------------------------|
| Name of Vessel. | Gross. | Register. | Nominal Horse-powen of all Steamships and Frake Horse- power of Ships other than Steam. | Indicated Horse- power of Home- trade Steamers and of Foreign Steamers only. | Description of Machinery. | Screw. | Paddle. |
| Glenelg | 288 | i | 75 | 288 | Compound S. condensing | Single | •• |
| O I | | | $\begin{array}{c} 10 \\ 12 \end{array}$ | | . " | , | •• |
| A | 83 | 56 | 30 | | ,, | , | |
| | 107 | | 50 B.H.P. 10 | | Oil-engine Compound S. condensing | Twin | |
| TT | 700 | 452 | 88 | 493 | Compound 5. condensing | Single | |
| Hauroto | 1,988 | | 253 | 1,241 | ,, | , | • • |
| TT 1 | $\begin{array}{c c} \dots & 1,757 \\ \dots & 167 \end{array}$ | | 104 35 | 928 120 | Triple-ex. S. condensing Compound S. condensing | " | •• |
| Heathcote Heather Bell | 26 | | | | Oil-engine | , | |
| Hinemoa | | ::0 | $6\frac{1}{2}$ | | High pressure | , | •• |
| Himitangi Hirere | $\begin{array}{c c} \cdot \cdot & 323 \\ \cdot \cdot & 48 \end{array}$ | | 45 16 | 242 | Triple-ex. S. condensing Compound S. condensing | Twin | • • |
| Huia (Auckland) | | | 8 | :: | High pressure | Single | |
| Huia (Wellington) | 133 | | 23 | 126 | Compound S. condensing | " | •• |
| Huia (2) (Wellington Invercargill | 223 | 123 | 2 41 | 235 | High pressure Compound S. condensing | ,, | |
| Ithaca | 17. | 7 13.2 | 9 | | " | , | |
| Jane Douglas | 95 | | 22 | 70 | " | ,, | •• |
| J.D.O John Anderson | $\begin{bmatrix} 129 \\ 52 \end{bmatrix}$ | | 28 20 | 168 | " | , | |
| John Townley | | 85 | 39 | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Twin | :: |
| Kaeo | 184 | | 60 B.H.P. 40 | 100 | Oil-engine | ginals | ••• |
| Kahu Kaipara | 175 | 99 | 40 5 | 192 | Compound S. condensing Quadruple-ex. S. conden. | Single | •• |
| Kaituna | \8 | | 10 B.H.P. | | Oil-engine | , | |
| Kaituna | 1,976 | | 200 | 1,063 | Triple-ex. S. condensing | , | ••• |
| T7 ' ! | $ \begin{array}{c c} & 1,425 \\ & 202 \end{array} $ | | 117 20 | 723 162 | Compound S. condensing | " | :: |
| Kapiti | 242 | 113 | 35 | 206 | , · | , | |
| | 1,375 | | | 900 | Triple-ex. S. condensing | <i>"</i> ••• | •• |
| 17 - 4 - | $\begin{array}{c c} \cdot \cdot & 76 \\ \cdot \cdot & \cdot \end{array}$ | 51 | 17 5 | | Compound S. condensing High pressure | " | • • • |
| Kawatiri | | | $2\frac{1}{2}$ | :: | ,, | ,, | , , , |
| | 188 | | 38.9 | 187 | Compound S. condensing | Twin | •• |
| TZ - 1 1 | $\begin{array}{c c} & 127 \\ & 342 \end{array}$ | | 55 B.H.P. 43 | | Oil-engine Compound S. condensing | Single at | •• |
| | | | | '' | - · · | each end | |
| | 299 | 156 | 24 65 | 900 | High pressure | Twin | Stern wheel |
| TZ! .! | $\begin{array}{c c} \cdot \cdot & 299 \\ \cdot \cdot & 1,122 \end{array}$ | | 130 | 386 633 | riple-ex. S. condensing | Single | •• |
| Kiripaka | 105 | 75 | 24 | 107 | Compound S. condensing | " ··· | |
| Kittawa Koi | $\begin{array}{c c} . & 1,246 \\ . & 123 \end{array}$ | | $\frac{120}{32}$ | 718 | Triple-ex. S. condensing Compound S. condensing | Twin | • • |
| T7 | 1,090 | | 115 | 749 | Triple-ex. S. condensing | Single | |
| Kopu | ` | 18 | 13 | | High pressure | | Paddle. |
| 77 | 153 | | 190 | 1 | | •• | I addie. |
| | | | 120 | 490 | Compound S. condensing | | " |
| Kotahi | 12 | | 9 <u>1</u> 18 B.H.P. | | Compound S. condensing Quadruple-ex. S. conden. Oil-engine | 1 | |
| Kotare | 141 | 9 79 | 9½ 18 B.H.P. 20 | 130 | Compound S. condensing Quadruple-ex. S. conden. | Single | " •• |
| Kotare Kotiti | 141 | 9 79 42 | 9½ 18 B.H.P. 20 14 | 130 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing | Single | " |
| Kotare Kotiti Kuaka | 141 | 9 79 42 33 | 9½ 18 B.H.P. 20 14 90 B.H.P. | 130 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine | Single | " •• |
| Kotare Kotiti Kuaka Lady Barkly Little Jack | 141 58 45 55 | 9 79 42 33 39 | 9½ 18 B.H.P. 20 14 90 B.H.P. 20 1½ | 130 71 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine Compound S. condensing High pressure | Single | " |
| Kotare Kotiti Kuaka Lady Barkly Little Jack Loyalty | 141 58 45 55 100· | 9 79 42 33 39 6 68·4 | 9½ 18 B.H.P. 20 14 90 B.H.P. 20 1½ | 130 71 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine | Single | " |
| Kotare Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton | 141 58 45 55 100 190 | 9 79 42 33 39 68.4 39 | 94 18 B.H.P. 20 14 90 B.H.P. 20 14 35 80 6 | 130 71 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine Compound S. condensing High pressure Compound S. condensing High pressure | Single """""""""""""""""""""""""""""""""" | |
| Kotare Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno | 141 58 45 55 100 190 | 9 79 42 33 39 6 68.4 39 | 9½ 18 B.H.P. 20 14 90 B.H.P. 20 1½ 35 80 6 60 B.H.P. | 130 71 108 191 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine Compound S. condensing High pressure Compound S. condensing High pressure Oil-engine | Single | " |
| Kotare Kotiti Kotiti Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno . | 141 58 45 55 100 190 35 5,282 | 9 79 42 33 39 6 68·4 39 24 3,276 | 94 18 B.H.P. 20 14 90 B.H.P. 20 14 35 80 6 | 130 71 108 191 6,000 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine Compound S. condensing High pressure Compound S. condensing High pressure | Single | " |
| Kotare Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Makarora | 141 58 45 55 100 190 35 5,282 5,282 | 9 79 42 33 39 68.4 .39 24 3,276 13 | 94 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 | 71 108 108 191 6,000 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine Compound S. condensing High pressure Compound S. condensing High pressure Oil-engine Turbine Compound S. condensing High pressure | Single | " Paddle. |
| Kotare Kotiti Kotiti Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Makarora Mana (Wellington) | 141 58 45 55 100 190 35 5,282 5,282 29 | 9 79 42 33 39 68·4 .39 24 3,276 13 | 94 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 25 | 130 71 108 191 6,000 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Compound S. condensing High pressure Oil-engine Turbine Compound S. condensing | Single """ """ Twin Triple Single | Paddle |
| Kotare Kotiti Kotiti Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Maharora Mana (Westport) | 141 58 45 55 100 190 35 5,282 5,282 | 9 79 42 33 39 68.4 39 24 3,276 13 77 50 | 94 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 | 71 108 108 191 6,000 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Oil-engine Turbine Compound S. condensing High pressure Compound S. condensing Quadruple-ex. S. conden. | Single | " Paddle. |
| Kotare Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Mahutu Makarora Mana (Westport) Manapouri Manaroa | 141 58 45 55 100 190 190 5,282 29 45 99 196 2,060 122 | 9 79 79 42 33 39 68·4 39 24 3,276 13 77 50 1,288 77 | 94 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 25 90 220 24 | 130 71 108 191 6,000 125 1,535 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine Compound S. condensing High pressure Oil-engine Turbine Compound S. condensing High pressure Compound S. condensing Quadruple-ex. S. conden. Compound S. condensing | Single Twin Triple Single Single | Paddle |
| Kotare Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Mahautu Makarora Mana (Westport) Mana (Westport) Mananoa Mananoa Mananoa Mananoa | 141 58 45 55 100 190 35 5,282 99 45 99 196 2,060 122 882 | 9 79 79 42 33 39 68·4 39 24 3,276 13 77 50 1,288 77 366 | 9 1 18 B.H.P. 20 14 90 B.H.P. 20 15 80 6 6 B.H.P. 600 103 13 25 90 220 24 160 | 130 71 108 191 6,000 125 1,535 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Oil-engine " Oil-engine " Compound S. condensing High pressure Compound S. condensing Guadruple-ex. S. conden. Compound S. condensing Triple-ex. S. condensing | Single Twin Triple Single Zuad | Paddle. |
| Kotare Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Mahautu Makarora Mana (Westport) Mana (Westport) Manapouri Manaroa Manchester Mangaiti | 141 58 45 55 100 190 190 55,282 29 45 196 2,060 122 882 146 | 9 79 42 33 89 6 68.4 39 24 3,276 13 77 50 1,288 77 366 87 | 94 18 B.H.P. 20 14 90 B.H.P. 20 1½ 35 80 6 60 B.H.P. 600 10¾ 13 25 90 220 24 160 6 28 | 130 71 108 191 6,000 125 1,535 156 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Coll-engine Turbine Compound S. condensing High pressure Compound S. condensing High pressure Compound S. condensing Guadruple-ex. S. conden. Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing High pressure Compound S. condensing | Single Twin Triple Single Quad Single | Paddle |
| Kotare Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Mahutu Makarora Mana (Wellington) Mana (Westport) Manapouri Manaroa Mannehester Mangajaja Manuka | 141 58 45 55 100 190 190 5,282 29 45 2,060 122 882 146 4,505 | 9 79 79 42 33 39 68.4 39 24 3,276 13 77 50 1,288 77 366 87 2,783 | 94 18 B.H.P. 20 14 90 B.H.P. 20 14 35 80 6 60 B.H.P. 600 103 13 25 90 220 24 160 6 28 357 | 130 71 108 191 6,000 125 1,535 156 198 4,101 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine | Single Twin Triple Single Single Twin Twin Triple Triple Triple | Paddle |
| Kotare Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Mahau Mana (Wellington) Mana (Westport) Manapouri Manaroa Manchester Mangapapa Manuka Manuka | 141 58 45 55 100 190 5,282 5,282 29 196 2,060 122 882 146 4,505 146 | 9 79 79 42 33 39 6 68·4 39 24 3,276 13 77 50 1,288 77 366 87 2,783 45 | 91 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 25 90 220 24 160 6 28 357 20 | 130 71 108 191 6,000 125 1,535 156 198 4,101 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Oil-engine " Oil-engine " Compound S. condensing High pressure Oil-engine Turbine Compound S. condensing High pressure Compound S. condensing Turbine Compound S. condensing High pressure Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Compound S. condensing | Single Twin Triple Single Single Twin Single Single | Paddle |
| Kotare Kotiti Kotiti Kotiti Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Maharora Mana (Westport) Mana (Westport) Manaroa Manchester Mangapapa Manuka Manurere | 141 58 45 55 100 190 190 5,282 29 45 2,060 122 882 146 4,505 | 9 79 79 42 33 39 68·4 .39 24 3,276 13 77 50 1,288 77 366 87 2,783 45 | 94 18 B.H.P. 20 14 90 B.H.P. 20 14 35 80 6 60 B.H.P. 600 103 13 25 90 220 24 160 6 28 357 | 130 71 108 191 6,000 125 1,535 156 198 4,101 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing | Single Twin Triple Single Single Twin Single Twin Single | Paddle |
| Kotare Kotiti Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Maharora Mana (Wellington) Mana (Westport) Manapouri Manaroa Mannaroa Mandester Mangapapa Manuka Manuka Manuka Manuka Manurere Manuwai Mapourika | 141 58 45 55 100 190 35 5,282 29 45 196 2,060 122 882 146 4,505 107 1,202 | 9 79 79 42 33 39 68.4 39 24 3,276 13 77 50 1,288 77 366 87 2,783 45 75 718 | 9 1 18 B.H.P. 20 14 90 B.H.P. 20 1 1 2 35 80 6 60 B.H.P. 600 10 2 13 25 90 220 24 160 6 28 357 20 3 1 2 5 1 30 | 130 71 108 191 6,000 125 1,535 156 198 4,101 1,077 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Oil-engine Oil-engine Compound S. condensing High pressure Compound S. condensing High pressure Compound S. condensing High pressure Compound S. condensing Turbine Compound S. condensing Triple-ex. S. conden. Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Compound S. condensing Compound S. condensing | Single Twin Single Single Twin Single Single Single Twin Single | Paddle Paddle Paddle Stern wheel |
| Kotare Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Mahautu Makarora Mana (Wellington) Mana (Westport) Manapouri Manapapapa Mangapapa Manuka Manurere Manuwai Mapourika Mapourika | 141 58 45 55 100 190 5,282 29 196 2,060 122 882 146 4,505 65 107 1,202 2,598 | 9 79 79 42 33 39 68.4 39 24 3,276 13 77 50 1,288 77 366 87 2,783 45 75 718 1,380 | 91 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 25 90 220 24 160 6 28 35 35 90 220 24 160 5 13 5 13 5 13 5 13 5 13 5 9 13 13 13 13 13 13 16 16 16 16 16 16 16 16 16 16 | 130 71 108 191 6,000 125 1,535 156 198 4,101 1,077 3,864 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Oil-engine " Oil-engine " Compound S. condensing High pressure Oil-engine Turbine Compound S. condensing High pressure Compound S. condensing Guadruple-ex. S. conden. Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing High pressure Compound S. condensing High pressure Compound S. condensing | Single Twin Triple Single Zuad Single Single Single Single Single | Paddle. Paddle. Stern wheel |
| Kotare Kotiti Kotiti Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Maheno Mahautu Makarora Mana (Westport) Mana (Westport) Manapouri Manapouri Mangapapa Manuka Manuka Manuka Manuwai Manuwai Mapourika Mararoa Mararoa Manuwai Manuwai Manuwai Mararoa Mararoa Manuwai Manuwai Mapourika Mararoa Mararoa Mararoa Mararoa Mascotte (Thames) | 141 58 45 55 100 190 35 5,282 29 45 196 2,060 122 882 146 4,505 107 1,202 | 9 79 79 42 33 39 68·4 .39 24 3,276 13 77 50 1,288 77 366 87 2,783 45 75 718 1,380 | 9 1 18 B.H.P. 20 14 90 B.H.P. 20 1 1 2 35 80 6 60 B.H.P. 600 10 2 13 25 90 220 24 160 6 28 357 20 3 1 2 5 1 30 | 130 71 108 191 6,000 125 1,535 156 198 4,101 1,077 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Compound S. condensing Triple-ex. S. conden. Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing High pressure Triple-ex. S. condensing | Single Twin Triple Single Single Single Single Single Twin Single | Paddle Paddle Paddle Stern wheel |
| Kotare Kotiti Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Mahautu Makarora Mana (Wellington) Mana (Westport) Manapouri Manaroa Manchester Mangaiti Mangapapa Manuka Manukau Manurere Manuwai Mapourika Mararoa Masaroa Masaroa Mandararoa Mandararoa Mandararoa Masaroa Masarara | 141 58 45 55 100 190 190 190 29 45 29 45 20 20 146 4,505 65 107 1,202 2,598 110 120 120 120 120 120 120 120 | 9 79 79 42 33 89 6 68.4 39 24 3,276 13 77 50 1,288 77 366 2,783 45 75 718 1,380 13 | 9 1 18 B.H.P. 20 14 90 B.H.P. 20 1 1 1 2 3 5 80 6 60 B.H.P. 600 10 2 20 2 4 160 6 28 357 20 3 1 2 5 2 1 30 5 30 . 12 4 1 7 | 130 71 108 191 6,000 125 1,535 156 198 4,101 1,077 3,864 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Coll-engine Turbine Compound S. condensing High pressure Compound S. condensing High pressure Compound S. condensing Guadruple-ex. S. condensing Triple-ex. S. condensing Uadruple-ex. S. condensing Triple-ex. S. condensing Uadruple-ex. S. condensing Triple-ex. S. condensing | Single Twin Triple Single Quad Single Twin Single Tsingle | Paddle |
| Kotare Kotiti Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Mahautu Makarora Mana (Wellington) Mana (Westport) Manaroa Manapouri Manaroa Manchester Mangapapa Manuka Manurere Manuwai Manurere Manuwai Mapourika Mararoa Mascotte (Thames) Matara Matarae Matarere Matuku | 141 58 45 55 100 190 35 5,282 29 196 2,060 2,060 2,20 882 146 4,505 107 1,202 2,598 21 | 9 79 79 42 33 39 6 68-4 39 24 3,276 13 77 50 1,288 77 866 2,783 45 75 718 1,380 13 | 91 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 25 90 220 24 160 6 28 35 35 90 220 24 160 6 28 35 35 35 4 17 4 | 130 71 108 191 6,000 125 1,535 156 198 4,101 1,077 3,864 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Compound S. condensing High pressure Oil-engine " Turbine Compound S. condensing High pressure Compound S. condensing Quadruple-ex. S. conden. Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Compound S. condensing Unadruple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Unadruple-ex. S. condensing Compound S. condensing Compound S. condensing Compound S. condensing Compound S. condensing High pressure Compound S. condensing | Single Twin Triple Single """ Single Single Single Single Twin Single Twin | Paddle. Paddle. Stern wheel |
| Kotare Kotiti Kotiti Kotiti Kuaka Lady Barkly Little Jack Loyalty Lyttelton (tug) Lyttelton Maheno Maheno Maheno Mahana (Wellington) Mana (Westport) Manana (Westport) Manapouri Manapapa Manahana Manurere Manuwai Manurere Manaroa Manurere Manaroa Manaurere Manurere Manaroa Manaurere Manaroa Masaurere Masaurere Masaurere Matara Matara | 141 58 45 55 100 190 35 5,282 29 45 196 2,060 122 882 146 4,505 65 1,202 2,598 21 64 | 9 79 79 42 33 89 6 68.4 39 24 3,276 13 77 50 1,288 77 366 2,783 45 75 718 1,380 13 13 8 | 94 18 B.H.P. 20 14 90 B.H.P. 20 11 35 80 6 60 B.H.P. 600 103 13 25 90 220 24 160 6 28 357 20 31 35 90 220 24 160 6 28 357 20 31 4 13 4 4 45 B.H.P. | 130 71 108 191 6,000 125 1,535 156 198 4,101 1,077 3,864 | Compound S. condensing Quadruple-ex. S. conden. Oil-engine Compound S. condensing Oil-engine " Compound S. condensing High pressure Compound S. condensing High pressure Oil-engine " Turbine Compound S. condensing High pressure Compound S. condensing Quadruple-ex. S. conden. Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Triple-ex. S. condensing Triple-ex. S. condensing Compound S. condensing Compound S. condensing High pressure Triple-ex. S. condensing High pressure Compound S. condensing | Single Twin Triple Single Quad Single Twin Single Tsingle | Paddle |

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

No. 15.—Return of Steamers and Oil-engine Vessels surveyed, &c.--continued.

| | | leasure- ent. | Nominal Horse-power of all Steamships and Brake Horse-power of Ships other than Steam. | In dicated Horse-power of Home-trade Steamers and of Foreign Steamers only. | | | |
|--|----------------|--------------------|--|---|--|---|---|
| Name of Vessel. | į | <u>.</u> | Hor Ste rake of | of of tear ign | Description of Machinery. | Screw. | P a ddle. |
| | Gross. | Register. | inal all A B wer | icat wer de S Fore | | | |
| | Ğ. | Re | Non of oth | In d po tra of of | | | |
| | 24 | 15 | 27½ B.H.P. | | Oil-engine | Single | |
| Ioerangi Iokoia | 0 500 | 2,153 | 255 | 3,626 | Triple-ex. S. condensing | " · · · | • |
| loturoa . | 100 | | 10 | 200 | Compound S. condensing | , | Paddle. |
| Iountaineer | 109 2.026 | $\frac{66}{1,247}$ | 50 275 | $\frac{200}{1,809}$ | Triple-ex. S. condensing | Twin | raddie. |
| urihiku | 558 | 368 | 70 | 443 | ,, | ,, | •• |
| uritai (Auckland) aomi II | 224 | 133 | 45 19 B.H.P. | 265 | Compound S. condensing Oil engine | Single | • |
| aomi II apier | 70 | 48 | 30 | 87 | Compound S. condensing | " | •• |
| atone | 72 41 | 49 29 | 24 18 | •• | " | , | •• |
| autilus | 2,929 | 1,812 | 221 | 2,206 | Triple-ex. S. condensing | Twin | •• |
| ever Despair | 601 | | $\frac{1\frac{1}{2}}{160}$ | | High pressure Triple-ex. S. condensing | Single Twin | •• |
| gapuhi gatiawa | 691 451 | 299 220 | 160 55 | 663 354·7 | Triple-ex. S. condensing | # | • |
| gunguru | 105 | 68 | 17 | 50 | Surface condensing | Single | |
| iobe | | :: - | $\frac{3\frac{1}{2}}{4}$ | •• | High pressure Compound S. condensing | ,, | •• |
| ina | 114 | 73 | 26 | 120 | " | ,, | :: |
| uru | 23 | 20 16 | 14 14 | ! ! | Quadruple-ex. S. conden. Compound S. condensing | Twin | •• |
| nslow | 110 | 64 | 18 | 60 | " | Single | :: |
| outia | | | 5 | | High pressure | , | ., |
| eti (Invercargill) eti (Wellington) | 18 219 | 13 117 | 10 B. H .P. 50 | 209 | Oil-engine Compound S. condensing | " | |
| rewa | 59 | 37 | 17 | | F | , | D 13 |
| sprey | 0.1 | 138 46 | 70 15 | 265 66 | " | Single | Paddle. |
| aeroa | 40 | 27 | 11 | | " | "Single | |
| reora | 650 | 355 | 71 | 413 | Triple-ex. S. condensing | " | |
| iteena | $1,212 \\ 161$ | 550 | 250 57 | 1,893 283 | Compound S. condensing Triple-ex. S. condensing | Twin | ••• |
| olorus | 24 | 18 | 40 B.H.P. | | Oil-engine | Single | •• |
| nguin | E00 | 517 388 | 180 82 | 932 525 | Compound S. condensing Triple-ex. S. condensing | " | •• |
| etone | 44 | 18 | 11 | 90 | Compound S. condensing | " | |
| nœnix | | 6 | 6 | · · · | High pressure | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| ilot (Auckland) ilot (Wellington) | 90 | 10 26 | 13 15 | :: | Compound S. condensing Triple-ex. S. condensing | " | :: |
| raki | 10 | ٠. | 7 | | High pressure | ,, | •• |
| toitoi | 72 23 | 23 13 | 13½ 8 | ••• | Compound S. condensing Compound jet condensing | " | •• |
| anet lucky (2) | 81 | 29 | 40 | 256 | Compound S. condensing | " | |
| oherua | 1,174 | 749 | 128 3 | 704 | Triple-ex. S. condensing Compound S. condensing | " | •• |
| resto rogress | 244 | 112 | 45 | 148 | " | , | |
| akaki | 1,444 | 917 | 110 | 623 | Quadruple-ex. S. conden. | m | •• |
| nau ntiki | 51 408 | 38 157 | 18 60 | 342 | Compound S. condensing | Twin . Single | |
| neen of the South | 107 | 121 | 40 | 195 | " | " | |
| akanoa akiura (Dunedin) | 1.05 | 1,393 | 200 25 | 938 124·8 | Triple-ex. S. condensing Compound S. condensing | , | |
| akiura (Dunedin) akiura | 17.0 | 13.4 | 10 B.H.P. | •• | Oil-engine | ,, | |
| arawa | 1,071 | 460 | 140 | 1,055 | Triple-ex. S. condensing | Twin | |
| esult (Napier) pple | 110 | 18 187 | 60 | 290 | Compound S. condensing Triple-ex. S. condensing | Single | :: |
| ta | 40 | 17 | 11 | | Compound S. condensing | ,; ·· | •• |
| mu b Roy | 0.5 | 144 34 | 95 19 | 459 124 | Triple-ex. S. condensing Compound S. condensing | Twin Single | • • |
| osamond | 721 | 462 | 90 | 422 | * | ,, | |
| setta | 100 | 9.6 | 5 B.H.P. | | Oil-engine Compound S. condensing | " | •• |
| othesay otoiti | | 8 | $2\frac{45}{2}$ | •• | Triple-ex. S. condensing | ,, | • • • |
| otoiti | 1,158 | 629 | 104 | 1,098 | Compound S. condensing | Twin | •• |
| otokohu otorua (2) | 14·6 7·6 | 11 5·7 | 8 25 B.H.P. | | Oil-engine | Single | • |
| otomahana(Auckland |) 183 | 139 | 50 | 280 | Compound S. condensing | , | •• |
| otomahana (Dunedin nahine | 10.4 | 915 12·3 | 450 2 1 B.H.P. | 2,620 | Oil-engine | , | |
| ianine ibi Seddon | F00 | 348 | 150 | ••• | Triple-ex. S. condensing | Twin | |
| ıru (Auckland) | 31 | 11 65 | 10 | 257 | Compound S. condensing | Single | •• |
| ıru (Napier) | 04.4 | 65 16 | 28 2 1 B.H.P. | 257 | Oil-engine | " | |
| vaii (2) | 55 | 31 | 16 | | Compound S. condensing | " | •• |
| out | 100 | 10 60 | 10 B.H.P. 120 B.H.P. | • • • | Oil-engine | Twin | •• |
| amrock r William Wallace | 44 | 30 | 20 | :: | Compound S. condensing | Single | |
| eedwell | 0.00 | 30 | 3 <u>3</u> | 242 | High pressure Compound S. condensing | Single | S.ern whe |
| uall andard | 1.0 | 133 | 10 B.H P. | | Oil-engine | " ·· | :: |
| ella | 268 | 157 | 90 | 227 | Compound S. condensing | " | |
| irling | 967 | 26 | 39 | 197 292 | " | ,, | • • • |

No. 15 — Return of Steamers and Oil-Engine Vessels surveyed, &c .- continued.

| | Tons Me | easure- nt. | power power Horse Ship | Hors Hor ters al | | | |
|--|-----------------------|---|--|---|--|----------------|---|
| Name of Vessel. | Gross. | Register. | Nominal Horse power of all Steamships and Brake Horse-power of Ships other than Steam. | In dicated Horse- power of Home- trade Steamers and of Foreign Steamers only. | Description of Machinery. | Screw. | Paddl |
| ormbird | 217 | 129 | 40 ' | 206 | Compound S. condensing | Single | |
| imner | 167 9·4 | $\frac{94}{7.5}$ | 35 5 B.H.P. | • • | Oil-engine | , | |
| van (Auckland) | 5 | 3.8 | $\frac{1}{2}$ | | High pressure | " | •• |
| van (Wellington) | 11.9 | 9 | 14 B.H.P. | :: | Oil-engine | ,, | |
| nieri | 1,668 | 1,071 | $\begin{array}{c} 155 \\ 22 \end{array}$ | 736 | Triple-ex. S. condensing High pressure | " | Paddle. |
| inui (Auckland) | 80 128 | 46 59 | $rac{22}{24}$ | $\dot{1}\dot{2}\dot{2}$ | Compound S. condensing | Single | |
| kapuna (Auckland) | 930 | $\begin{array}{c} 57 \\ 472 \end{array}$ | 25 | 1,493 | High pressure Compound S. condensing | Single | Paddle. |
| kapuna (Dunedin) | 2,000 | 1,370 | $\frac{265}{255}$ | 1,493 $1,922$ | Triple-ex. S. condensing | ,, | |
| ingaroa | 189 | 109 | 70 | | Compound S. condensing | Twin | ••• |
| iniwha (Auckland) iniwha (Timaru) | 263 | 191 16 | $\begin{array}{c} 40 \\ 16 \end{array}$ | • • • | High pressure | Single | |
| rakihi | | | 4 | | Commence of Commence | ,, | ••• |
| rawera | $\frac{2,003}{1,465}$ | $^{1,268}_{910}$ | $\frac{250}{135}$ | $1,579 \\ 960$ | Compound S. condensing Quadruple-ex. S. conden. | ,, | ••• |
| wera (Auckland) | | | 8 | | High pressure | " | ••• |
| iwera (Gisborne) iwera (Lake Te Anau) | 52 | 41 | 40 B.H.P. 14 | | Oil-engine Compound S. condensing | ,, | |
| Anau | 1,652 | 1,028 | 250 | 1,245 | - " | ,, | D. 331. |
| Aroha | 69 9·7 | $\frac{49.9}{7.2}$ | 14 12 B.H.P. | | High pressure Oil-engine | Single | Paddle. |
| erewai | 22 | 11 | 11 | | Compound S. condensing | , | |
| neresa Ward | 194 96 | $\begin{vmatrix} 9\\77 \end{vmatrix}$ | 95 90 B.H.P. | 448 | Triple-ex. S. condensing Oil-engine | Twin | |
| nistle nomas King | 98 | 70 | 16 | •• | High pressure | Single | |
| maru | 479 | $211 \ 4$ | $\substack{ 78 \\ 8 \cdot 2}$ | 295 | Compound S. condensing | Twin Single | |
| ongariro orgauten | $\frac{20}{266}$ | 197 | 20 | 107 | " | ,, | |
| ogo | | ::. | 14 | ::. | Wrinle or C condensing | Twin Single | ••• |
| oroa aveller | 388 | 174 | 91 7·75 | 494 | Triple-ex. S. condensing Compound S. condensing | " | :: |
| iakau | | | 2 | | High pressure | ,, | ••• |
| ıatea ı Atu | 112 40 | 58 30 | 28 48 B.H.P. | 242 | Compound S. condensing Oil-engine | Twin | :: |
| ahara | 97 | 74 | 60 B.H.P. | • • • | , | , | |
| ına (Gisborne) Waipounamu | 26.6 | 19·9 | 14 2 1 B.H.P. | • | Compound S. condensing Oil-engine | Single | |
| ira | | | $^{-}$ $3\frac{1}{2}$ | •• | High pressure | , | •• |
| ariance | 25·1 147 | $\begin{array}{c} 18.8 \\ 92 \end{array}$ | $\frac{2\frac{1}{2}}{40}$ B.H.P. | • • | Oil-engine High pressure | | Paddle. |
| vid | 21 | 6 | 13 | | ,, | Single | |
| aiapu aibi | 67 97 | 57 66 | 15 B.H.P. 20 | 172 | Oil-engine | " | |
| aihi | | | $3\frac{1}{2}$ | | High pressure | , | |
| aikato aimarie (Auckland) | $\frac{1}{245}$ | 159 | 4 48 | • • | Compound S. condensing | Twin | |
| aimarie (Wanganui) | 76 | 57 | 25 <u>1</u> | • • | High pressure | | Paddle. |
| ainui aione (2) | 661 | 411 | $\frac{95}{21}$ | 568 | Compound S. condensing Triple-ex. S. condensing | Single Twin | |
| aione (2) aiora | 57 | | 5 | | Compound S. condensing | Single | |
| aiotahi | 278 | $\frac{167}{27}$ | 53 | 298 | High pressure | Twin | Paddle. |
| airere airuna | 3,947 | 2,529 | 5 1 396 | 1,965 | Triple-ex. S. condensing | Single | |
| airua | 171 | | 5 | 904 | Compound S. condensing | Twin | • • • |
| aitangi (Auckland) aitangi (Matakohe) | 171 45 | 34 30 | $\frac{62}{15}$ | 394 | " | Single | • |
| aitohi | 24 | 18 | 10 | | Oil-engine " | ,, | • • • |
| aiwera aiwiri | 1 :: | | 16 B.H.P. 7 3 | • | Compound S. condensing | " | • |
| akapai | | | 10 | • • | , | ,, | Paddle. |
| akatere akatu | 157 | 157 95 | $\begin{array}{c} 140 \\ 23 \end{array}$ | i60 | " | Single | raddle. |
| anaka | 2,421 | 1,572 | 280 | 1,180 | Triple-ex. S. condensing | , | |
| arkworth arrimoo | $\frac{24}{3,529}$ | $\frac{23}{2,076}$ | 10 B.H.P. 490 | 3,713 | Oil-engine Triple-ex. S. condensing | , | |
| averley | 156 | 93 | 25 | 104 | Compound S. condensing | Twin | •• |
| eka (Auckland) eka (Napier) | 127 89 | 86 52 | $\begin{array}{c} 27 \\ 20 \end{array}$ | 65 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Single | • • • |
| estland | 152 | 8.45 | 86 | 420 | . " | | Paddle. |
| hakariri | 819 | 449 | $\frac{120}{2\frac{1}{2}}$ | 639 | | Twin Single | |
| hakapara hangape | 2,931 | 1,900 | $280^{2\frac{7}{2}}$ | 1,116 | Triple-ex. S. condensing | " · · · | |
| hati | | 89.6 | $\begin{array}{c} 1\frac{3}{4} \\ 33 \end{array}$ | 180 | Compound | // ··· | |
| ootton oung Bungaree | 151 69 | 47 | 35 | 199 | " | , | |
| nkee Doodle | | 6 | 12 | | High pressure | | Paddle. |

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

No. 16.—Return of Sailing-Vessels surveyed during the Financial Year ended the 31st March, 1907, with Particulars of Tonnage, &c.

| | | | | | Tons Mea | asurement. | | Times surveyed | |
|--------------|---------|---------|---|---|----------|------------|--------------|----------------|---|
| | Name of | Vessel. | | | Gross. | Register. | Description. | | |
| Defiance | | | | | 208.4 | 199 | Brigantine | | 2 |
| Elverland | | | | | 298 | 136 | Barquentine | | 1 |
| Empreza | | | | | 294 | 236 | Barque | | 1 |
| Frank Guy | | | · | | 195 | 191 | Schooner | | 1 |
| Hazel Craig | | | | | 495 | 467 | ,, | | 1 |
| Helen Denny | | | | | 742.6 | 694.5 | Barque | | 1 |
| Hirotha | | | | | 540.7 | 498.8 | ,, | ٠ | 1 |
| James Craig | | | | | 670 | 646 | ,, | | 1 |
| Jessie Craig | | | | | 680 | 634 | ,, | | 1 |
| Onyx | | | | | 427 | 396 | ,, | | 1 |
| Pendle Hill | | | | | 234 | 222 | Barquentine | | 1 |
| St. Kilda | | | | ! | 197.8 | 189 | Schooner | | 1 |
| Waiiti | | | | ! | 733 | 689 77 | Barque | | 1 |
| Ysabel | | | | | 148.5 | 148.5 | Schooner | | 1 |
| Zelateur | | | | | 557.2 | 524.4 | Barque | | 1 |

No. 17.—Return of Vessels surveyed for Seaworthiness, &c., from the 1st April, 1906, to the 31st March, 1907.

| Date of Survey | y. | Name of Vessel | l. | Where s | urveyed. | | Nature of Casualty, &c. |
|-------------------|----|----------------|-----|------------|----------|-----|--|
| 1906. April 10 | | S.s. Mimiro | | Wellington | | | A fire occurred in this vessel's No. 2 hold, while she was lying at the Glasgow Wharf, Welling- ton. After the fire was extinguished a special survey of the vessel was made, when she was found to have sustained no material damage |
| April 10 | | ., Claymore | | Auckland | | •: | affecting her seaworthiness. This vessel struck on Ti Point when on a voyage from Big Omaha to Auckland. On arrival at Auckland the vessel was floated into dock. On examination it was found that soveral plates in hull amidships were dented, and some thirty rivets started. All the damaged parts were repaired and made good. |
| April 21 | •• | ,, Perthshire | | Napier | | | This vessel touched the ground in the vicinity of the Pania Buoy, at Napier, on the 11th April, while on a voyage from Auckland to Wellington. On examination it was found that the vessel had grazed slightly on portside plating under Nos. 2 and 3 ballast-tanks, causing three small dents between frames. She had sustained no material damage affect- |
| April 23 | •• | ,, Mararoa | | Wellington | | • • | ing her seaworthiness, however. On a voyage from Lyttelton to Wellington on the 18th April this vessel's high-pressure radius-rod carried away, and broke two of the reversing-gear brackets. The engines were compounded, and resumed the voyage to Wellington, where the necessary repairs were effected. |
| April 30 | | ,, Mararoa | • • | Wellington | •• | •• | One of the main steam-pipes of this vessel was found to be defective. The bad part was cut out and a new piece fitted, and was tested by hydraulic pressure to 340 lb. before being put on board. |
| May 9 | •• | ,, Tasman | •• | Wellington | | •• | While on a voyage from Puponga to Wellington on the 8th May a fire occurred in the after end of the forehold. After the fire was extin- guished a survey of the vessel was made. It was found that the deck-planking over a space |
| May 15 | •• | ,, Indraghiri | | Wanganui | •• | | of 3 square feet had been slightly scorched. This vessel was lying at anchor in Wanganui Roadstead when a fire broke out in No. 2 lower hold. The Surveyor, on examination, found that about 50 square feet of the insulation had been charred. No material damage was done by the fire, however, affective recently convertible of the control of the state of the survey of the state of the |
| May 23 | | ,, Opawa | | Wellington | | •• | fecting vessel's seaworthiness. This vessel, when off Worser Bay, on a voyage from Wellington to Blenheim, on the 22nd May, broke her propeller-shaft just outside the stern tube. The vessel anchored, and later on was towed back to Wellington, where a new propeller-shaft and propeller were fitted. |

No. 17.—Return of Vessels surveyed for Seaworthiness—continued.

| Date of Survey. | Name of Vessel. | • | Where su | rveyed. | | Nature of Casualty, &c. |
|--------------------|-----------------|-----|------------|---------|----|---|
| 1906. May 29 | S.s. Waiwera | •• | Wellington | | | A length of this vessel's main steam-pipe was found to be defective. A new flange was fitted to replace the defective one, and the |
| May 31 | " Moeraki | | Wellington | | •• | pipe was tested afterwards to 360 lb. hydraulic pressure before being placed on board. While this vessel was lying at the Queen's Wharf, Wellington, on the 31st May, a fire occurred in No. 4 hold. A survey was made where the fire had been, when it was found that the fire had been confined to the cargo |
| June 2 | ,, Tainui | • • | Wellington | | | only, no damage having been done to the vessel at all. A length of this vessel's main steam-pipe was found to be fractured at the neck of the flange. A new piece 9 in. long was brazed on to replace the damaged part. The pipe was afterwards tested by hydraulic pressure |
| July 13 | ,, Blenheim | | Wellington | | | to 240 lb. per square inch before being sent on board the vessel. On a voyage to Blenheim from Wellington on the 5th July the vessel touched on the Wairau Bar. Vessel was placed on the Patent Slip, at Wellington, when it was found that the damage was confined to one plank in the hull, which was removed and replaced |
| July 23 | " Kini | | Wellington | •• • | •• | by a new one. On a voyage from Wellington to Greymouth on the 7th July, and when six miles off Cape Foulwind, this vessel's propeller-shaft broke. She was picked up by the s.s. "Koonya," and towed to an anchorage off Westport, and afterwards towed to Wellington by the s.s. "Taieri." A new propeller-shaft was fitted in Wellington while vessel was on the Patent |
| July 25 | ., Kiripaka | | Lyttelton | •• | •• | Slip. This vessel was on a voyage from Westport to Patea, laden with coal. When crossing the bar at Patea on the 2nd July she took the ground inside the Western Breakwater. About ten tons of coal were discharged, and the vessel came off the following tide. On the discharge of the coal at Patea vessel proceeded to Port Lyttelton for the necessary repairs and for survey. Repairs were effected to |
| July 26 | " Pondo | - • | Wellington | | •• | hull-fastenings and to stern tube. Whilst lying at the Glasgow Wharf, Wellington, on the 3rd July, the s.s. "Corinna" collided with this vessel, breaking the tip off one of the propeller-blades. The boss of the propeller at the same time was found to be slack on the tail end of the shaft. The vessel's stern was tipped up, and the shaft withdrawn. It was found necessary to make a new propeller-boss, which was fitted to the |
| July 30 | ,, Mararoa | | Wellington | | | shaft. When moving from the Queen's Wharf to the Glasgow Wharf in Wellington Harbour on the 30th July, this vessel broke the high-pressure slide-valve of the main engines. The broken parts were removed, and the engines compounded till a new valve was made and |
| Ang. 3 | ,, Talune | | Auckland | •• | | fitted. When arriving from Gisborne on the 3rd August, the tide carried this vessel against H.M.S. "Pioneer," anchored in the stream. The result of the impact was that two plates were slightly dented on the port side of hull-left and first rivets started. The rivets |
| Aug. 6 & 8 | ,, Tasman | •• | Wellington | | | plating, and five rivets started. The rivets were cut out and renewed. When this vessel was leaving Nelson for Motueka on the 6th August she came into collision with a pipe projecting from the breastwork. Two of her deck-cabins were damaged. Temporary repairs were effected to enable the vessel to proceed to Collingwood, and on her return to Nelson permanent repairs were |
| Aug. 7 | ,, Wakanui | • | Duncdin | · • | | effected. One length of this vessel's main steam-pipe was defective at one of the flanges. A new flange was fitted to the pipe, and was afterwards tested by hydraulic pressure before being fitted on board. |

No. 17.—Return of Vessels surveyed for Seaworthiness—continued.

| of | Date Survey. | Name of Vessel. | Where surveyed. | | Nature of Casualty, &c. |
|-------|-----------------|---------------------------|-----------------|----|---|
| Aug. | 1906. | S.s. Mokoia | Auckland | | While on a voyage from Sydney to Auckland on |
| | | | | | the 5th August it was discovered that the vessel was leaking in No. 1 forehold. On arrival at Auckland a special survey was made, and it was found that the leak was caused by a rivet-hole having been covered with cement. A diver went down and put a $\frac{7}{8}$ in. bolt through the hole, a nut being fitted to bolt inside. This was screwed up from the inside, and the vessel proceeded on her voyage to Wellington. A surveyor inspected this vessel three days later, on her arrival at Wellington, and found that satisfactory repairs had been made where the leak was, and that the vessel was in all re- |
| Aug. | 13 | " Pateena | Wellington | | spects seaworthy. On a voyage from Nelson to Wellington on the llth August this vessel grounded on the Boulder Bank when leaving Nelson for Wel- |
| | | | | | lington. A diver was employed to examine hull of vessel afloat in Wellington Harbour. The surveyor found that vessel was making no water. The diver on completing his examination also reported no damage. From the diver's report and the surveyor's examination it was found that the vessel had received no damage affecting her seaworthiness. |
| Aug. | 14 | ,, Mapourika | Wollington | •• | On a voyage from Westport to Nelson on the 11th August, the vessel stranded at the entrance to new cut through Boulder Bank when going into Nelson. The vessel was surveyed on her arrival at Wellington. It was found she had received no material damage affecting her seaworthiness. |
| Ang. | 14 | ., Aorere | Wellington | •• | The s.s. "Pateena" came into collision with the s.s. "Aorere," berthed at one of the Wellington Wharves, on the 6th August. She struck vessel's quarter heavily, causing her to leak badly, so much so that it was found necessary to beach the "Aorere." Temporary repairs were effected while vessel was on the beach, sufficient for her to be removed to Patent Slip. All the damage was made good before vessel came off the |
| ug. | 15 | Defiance (sailing-vessel) | Auckland | | Slip to resume her usual trading on the coast. This vessel carried away her cable-chain plates in heavy weather on a voyage between Newcastle and New Zealand on the 14th July. On arrival at Auckland all the chain-plates were renewed, and three wooden knees replaced by iron ones in the bow of vessel. |
| Aug. | 16 | S.s. Charles Edward | Greymouth | •• | On a voyage from Greymouth to Wanganui on the 16th August, in the Wanganui River, the propeller-shaft broke through propeller striking a snag. A new propeller-shaft was fitted to the vessel. |
| Aug. | 18 | " Squall | Auckland | •• | The crew of this vessel complained about the leaky state of their quarters in this vessel. It was found on survey that there was ground for the complaint. New quarters were found for the mon on the main deck. |
| Aug. | 18 | " Aorere | Wellington | •• | When crossing the Patea Bar on the 18th August, on a voyage to Wellington, a sea broke over the vessel forward, and smashed the wooden bulkhead at forward end of saloon. Extensive repairs were effected to the vessel on arrival at Wellington, and all the damaged |
| Aug. | 27 | ., Moa ' | Wellington | | portion made good. This vessel, on a voyage from Westport to Foxton, took the ground in the Manawatu River on the 4th August. The damage to hull, which was slight, was made good on arrival |
| Sept. | | ,, Wanaka | Dunedin | •• | in Wellington. This vessel was on a voyage from Dunedin to Auckland. When discharging cargo at the port of Auckland on the 21st September, and when lifting a block of stone about 2 ton weight, the wire rope broke; the stone falling on the tunnel-top fractured a side-plate and one of the angle irons for strengthening the same. The tunnel-plating was repaired, and a new angle iron was fitted to replace the fractured one. |

No. 17.—Return of Vessels surveyed for Seaworthiness—continued.

| Date of Survey. | Name of Vessel. | Where surveyed. | Nature of Casualty, &c. |
|--------------------|-------------------|-----------------|--|
| 1906. | | | |
| ept. 12 | S.s. Mascotte | Auckland | This vessel was sold to the Wanganui Harbou Board, and was specially surveyed at Auck land, and equipped to enable her to mak |
| ept. 28 | " Rose Casey | · Invercargill | the voyage to Wanganui from Auckland. This vessel, while on a voyage from Dunedin t Invercargill on the 11th July, struck on th New River Bar. Considerable damage we done to hull-plating, abreast of engine |
| ct. 11 | Mana | Wellington | Temporary repairs were effected to enab vessel to proceed to Dunedin, where pe manent repairs were made to the hull. Whilst on a voyage from Wellington to Pate on the 29th September, and on entering the |
| | | | Patea Harbour, the vessel took a shear, an came into collision with the Eastern Breal water. The stem was considerably ben and several of the bow-plates were fracturer. Temporary repairs were made to the hull a Patea to enable vessel to proceed to Wellington. Vessel was placed on the Patent Sliwhen the stem was straightened and the |
| ot. 24 | Queen Alexandra | Auckland | damaged plating made good. This vessel was on a voyage from Java to |
| | | • | Auckland. She stranded off Good Island, in Torres Straits, on the 1st January, and was refloated with the flood tide. No apparent damage was done to the vessel, and she resumed her voyage to Auckland. On arrivant Auckland, however, the vessel was docked when it was found necessary to renew on hull-plate and to straighten several floor |
| et. 24 | ., Tarawera | Auckland | plates and frames. After leaving Gisborne for Auckland on the 17th October the cargo was discovered to be |
| | | | on fire in the after hold. After the fire we extinguished, and on arrival at Auckland, the vessel was surveyed, when it was found the the under-side of the deck was charred to the depth of 1 in., and the deck stringer-plating |
| lov. 2 | Rippingham Grange | Auckland | slightly sprung. This vessel when on a voyage from Glasgow |
| | · | | Auckland fractured the tunnel-shaft, which was only discovered while the vessel will lying at the wharf in Auckland on the 22nd October. A gun-metal Thompson pater coupling was made, and fitted to the shaft over the damaged portion. |
| ov. 26 | ., Baden Powell | Wellington | This vessel took the ground on the bar at Foton on the 7th November, while on a voyage from Foxton to Wellington. She remained the bar about fifteen minutes, and came oby working the engines, when it was four the vessel had lost her rudder and rudder. |
| .* | | | post. She was towed to Wellington, an placed on the Patent Slip, where she had new rudder-post and rudder fitted. A ne |
| ov. 29 | ". Petone | Wellington | keel-shoe under aperture was also fitted. On the arrival of this vessel at Greymouth of the 14th September, after a voyage fro |
| | : | | Lyttelton, the furnaces of the main boil were found to have collapsed. After a su vey of the boiler, it was decided by the |
| | | | owner to have the vessel towed to Wellin ton for repairs. The s.s. "Duco," of We lington, proceeded to Greymouth for th purpose, arriving with the vessel in Wellin ton on the 20th September. After a thorough |
| • | | | survey of the damaged furnaces, it was d cided to fit three new furnaces to replace the damaged ones. After the completion of the work the boiler was subjected to a hydraul test, when everything was found satisfactor |
| ov. 29 | " Torgauten | Wellington | Whilst loading railway-iron at the Railwa Wharf, Wellington, on the 29th November, steel rail slipped out of the sling, making small hole in the bottom of the vessel. The vessel was placed on the Patent Slip, whe the damage to hull was made good. |
| ec. I | " Tasman | Wellington | This vessel touched the ground off Torawhi on the 23rd November, at midnight. The |
| | | | weather was very thick at the time, and the vessel was proceeding under reduced speed. The engines were put astern, when the very thick at the time, and the vessel was proceeding under reduced speed. |
| | | | sel came off. On arrival at Wellington survey was made. It was found that the vessel had sustanied no material damage. |

No. 17.—RETURN of VESSELS SURVEYED for SEAWORTHINESS—continued.

| of | Date Survey | <i>7</i> . | Name of Vessel. | Where surveyed. | | Nature of Casualty, &c. |
|--------|----------------|------------|---------------------------|-----------------|-----|--|
| Dec. | 1906. 15 | | S.s. Penguin | Wellington | | When leaving the Queen's Wharf, Wellington, on a voyage to Picton and Nelson on the |
| | | | | | | 14th December, this vessel collided with the Taranaki Street Wharf. Several frames were broken in the counter, and several plates were fractured at same place. A hole was also made in the rudder-trunk. All the damaged portions were cut out and renewed |
| Dec. | 22 | ٠. | Westland (sailing vessel) | Wellington | | before vessel left the port. This vessel was on a voyage from London to Nelson, and on entering the latter port |
| : | | | | | | in tow on the 13th November the vessel touched bottom entering the new channel. On arrival in Wellington the vessel was placed on the Patent Slip on the 22nd December, and after survey it was found she |
| Dec. | 29 | • • | S.s. Mamari | Auckland | | had sustained no damage. During the process of docking this vessel at Auckland on the 27th November, the vessel shifted after taking the blocks in the dock, necessitating the vessel being refloated, taken |
| , | 1907. | | | | | out again, and the dock pumped out. It was found that the blocks had shifted. The vessel was redocked, when it was found that the bilge-keels were set up about 4 in. and about sixty rivets sheared in the web-plate. Repairs were effected, making the vessel seaworthy, while the vessel was in dock. |
| Jan. | 4 | | ,, Torgauten | Lyttelton | | When swinging in the Greymouth River on a |
| J &II. | 7 | •• | , Torganen | Tyverion | | voyage to Lyttelton this vessel collided with the s.s. "Kennedy," moored at the wharf, and carried away her staunchions and boat's davits. These were replaced and made good in Lyttelton. |
| Jan. | 10 | | Navua | Auckland | | The main stop-valve spindle connected with the steam-connections of this vessel carried away when vessel was on the point of sailing for Fiji. On a survey being made it was found necessary to fit a new valve-spindle to replace |
| Jan. | 18 | ., | ., Himitangi | Wellington | •• | the defective one. At survey on the Patent Slip, in Wellington, several rivets were found to be loose in the forepart of hull. Altogether fifty rivets were renewed under the forepeak tank, and angleiron stiffeners were riveted fore and aft across |
| | | 1 | | | | frames in tank, and a new chafing-piece was also riveted on under aperture. |
| Jan. | 22 | | ,, Indraghiri | Auckland | | One length of the main steam-pipe showed signs of fracture at the flanges on a voyage from Liverpool to Auckland. Repairs were effected to the damaged portions, and the pipe was afterwards tested by hydraulic pressure to 400 lb. per square inch before being placed on |
| Jan | 25, 28 | , 29 j | ., Storm | Port Chalmers | | board. Whilst the vessel was on a voyage from Westport |
| | | | | | | to Wanganui with a cargo of coals, on the 16th January, and when crossing the bar of the Wanganui River, she bumped heavily, then stuck fast for some hours. Vessel eventually was floated off, and proceeded to the wharf. After the cargo was discharged |
| | | | | | | a survey was made of the vessel, when it was discovered that the stern-post was broken at the 10 ft. water-mark. Temporary repairs were effected, enabling the vessel to proceed |
| | | | • | | | the survey in dock it was found that the shank of the rudder was broken, the stern- post bent, and about five hundred rivets loose in the bottom plating of the vessel under the |
| | | | | | | and the rudder repaired; also temporary repairs were effected to the stern-post, making |
| T | 90 | | Pukaki | Tuttelton | | being made at Port Chalmers, which will be fitted into the vessel when it is ready. |
| Jan. | 29 | •• | ., гикакі | Dynamon | : 1 | steam-pipe fractured on the 26th January. The pipe was taken out, repaired, and tested by hydraulic pressure to 350 lb. per square |
| Jan. | 29 | | ., Pukaki | Lyttelton | | lôth January, and when crossing the bathe Wenganui River, she bumped hear then stuck fast for some hours. Veventually was floated off, and proceeded the wharf. After the cargo was dischara a survey was made of the vessel, when it discovered that the stern-post was broked the 10 ft. water-mark. Temporary repurer effected, enabling the vessel to proto Port Chalmers, where she was docked. The survey in dock it was found that shank of the rudder was broken, the steps then, and about five hundred rivets him the bottom plating of the vessel under forehold. The defective rivets were rener and the rudder repaired; also tempor repairs were effected to the stern-post, mal the vessel seaworthy. A new stern-post being made at Port Chalmers, which will fitted into the vessel when it is ready. This vessel put back to Lyttelton with m steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractured on the 26th Januar The pipe was taken out, repaired, and terminate the steam-pipe fractur |

No. 17.—RETURN of VESSELS SURVEYED for SEAWORTHINESS—continued.

| of | Date Survey. | Name of Vessei. | Where surveyed. | Nature of Casualty, &c. |
|------|-----------------|---------------------------------|-----------------|---|
| Jan. | 1907. 30 . | . S.s. Kaituna | Wellington | On a voyage from Westport to Wellington this vessel, by striking some submerged object lost two of her propeller-blades. On arriva |
| Feb. | 13 | Greyhound (auxiliary vessel) | Auckland | the afterhold of this vessel, which consisted of flax and tow, on a voyage from Awanui to Auckland. The fire was extinguished by running the vessel into shallow water and scuttling her. After the water was pumped out a survey was made. The damage to the vessel was found to consist of two deck |
| Feb. | 15 | S.s. Queen Amelio | Wellington . | beams and light woodwork between the after hold and engine-room being slightly burnt The damaged portions were repaired. While lying at Taranaki Street Wharf, Welling ton, a fire occurred in this vessel's cross |
| | | | | bunker. After being extinguished, and the coal removed, a survey was made, when it was found that three of the floor-plated between the tank-margin plate and the ship side were buckled, and the bilge suction-pipe fractured. Temporary repairs were effected in Wellington to permit vessel to proceed to Lyttelton, where permanent repairs were |
| Feb. | 21 | Surrey | Auckland | effected and vessel made seaworthy. This vessel is fitted with three single main boilers, of the Scotch marine type, having three furnaces of the Purves-pattern furnaces in each boiler, carrying a pressure of 160 lbs per square inch, and using Howden's forced draught. There is also an auxiliary boiler of the same description, but smaller, and with natural draught only. The defects in the |
| | | | | furnaces were first noticed on the 26th December, 1906. The vessel was then on a voyage from Liverpool to New Zealand. The porturnace in the starboard boiler first began to leak badly. The boiler was shut off, and the fires drawn, and the boiler blown down. Are examination revealed several cracks in and at each side of the grooves, about the middle of the furnace, varying in length from 3 in. to 7 in., running circumferentially from on a line with the fire-bars towards the top of the furnace. The furnace also at this place was distorted and flattened, being about 1½ in. out of |
| | | | | the true circle. Temporary repairs were effected at sea by chain-patching the worst cracks and putting in a girder with supporting bolts above the distorted places. This boiler was then used for the remainder of the voyage. |
| • | | | | forty days steaming at a pressure of 150 lb. per square inch, without giving further trouble. On the vessel's arrival in Auckland on the 21st February a survey was made of the rest of the furnaces of the other boilers. The re- maining eight were found to be much in the |
| | | | | same state as the one repaired at sea. The port boiler was the worst. Some of the cracks were $\frac{1}{8}$ in. open, and fully 8 in. in length or the fire side. Repairs were effected to the starboard and middle boilers in Auckland, and the steam-pressure reduced to 140 lb. |
| | | | | these two boilers, connected with the auxiliary boiler, being sufficient to propel the vessel at a speed of about eight knots pelenur. On the vessel's arrival in Wellington another survey was made on the 25th February, when the boiler-pressure was further reduced to 125 lb. pressure. On vessel's arriva |
| ſar. | | " Victoria | Wellington | at Port Chalmers instructions were given to the owners to renew the furnaces. One length of this vessel's auxiliary main steam pipe was cracked at the flange. The pipe was repaired, and tested to 400 lb. hydraulic pressure before being placed on board the ship |

No. 17.—RETURN of VESSELS SURVEYED for SEAWORTHINESS—continued.

| Date of Survey. | Name of Vessel. | Where surveyed. | Nature of Casualty, &c. |
|--------------------|-----------------|-----------------|---|
| 1907. Mar. 8 | S.S. Rimu | Invercargill | Whilst this vessel was on a voyage from Patterson Inlet to Half-moon Bay or the 15th February she grounded in Paterson Inlet. On the vessel's arrival at Invercargill a diver was |
| ¥ | | | employed to examine the hull. He reported that no damage had been done. An internal examination was also made by a surveyor, when it was found the vessel had received no injury. |
| Mar. 8 | ,, Rakiura | Dunedin | Whilst on a voyage from Dunedin to Waikawa the vessel ran ashore at 1.30 a.m. of the 16th February in Wiltshire Bay upon a sandy beach. She remained aground until the 7th March, when she was refloated on a good tide. She returned to Dunedin, where a survey was made of the vessel, when it was found she had received no injury. |
| Mar. 15 | Storm | Dunedin | The chief engineer of this vessel reported that a flaw had developed in the after crank-pin of the crank-shaft of the main engines. At the survey it was discovered that the flaw was showing distinctly on both sides of the pin. It was decided to have a new crank-shaft made to replace the defective one. The vessel was allowed to run until the new shaft was ready. |
| ojar. 20 | , Mararoa | Wellington | A defect was discovered in one of the lengths of the main steam-pipe of this vessel on the 18th instant whilst on a voyage from Wellington to Lyttelton. Temporary repairs were made to the pipe on the vessel's arrival in Lyttelton, enabling the vessel to return to Wellington. The pipe was taken off in Wellington and thoroughly repaired, and was afterwards tested under hydraulic pressure to 320 lb. per square inch before being placed on board. |

No. 18.—Return showing the Revenue from the Inspection of Machinery Department (including the Examination of Marine Engineers and Land-engine 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 and Land-engine Drivers and Survey of Steamers and Sailing-ships), during the Financial Year ended the 31st March, 1907.

| Rèce $ipts$. | £ | g, | đ. | | | £ | | đ. |
|--|--------|----|----|--------------------------------------|----|-------------|----|-------------|
| Inspection of boilers and machinery (less | | | | Salaries | | 5,994 | 12 | 10 |
| refunds) | 6,802 | 14 | 10 | Advertising | ٠ | 26 | 11 | 10 |
| Certificates of land-engine drivers (less re- | | | | Furniture for offices | | 10 | 6 | 6 |
| funds) | 651 | 2 | 6 | Gas | | 3 | 2 | 0 |
| Survey of steamers (including auxiliary- | | | | Postage and telegrams (three months) | | 61 | 10 | 5 |
| powered vessels) | 1,849 | 10 | 0 | Rent-Cleaning offices and fuel | ٠. | 285 | 18 | 8 |
| Survey of sailing-ships | 84 | 0 | 0 | Telephone rents | | 43 | 0 | 0 |
| Survey of vessels for seaworthiness | 138 | 0 | 0 | Travelling allowances and expenses | | 2,295 | 9 | 1 |
| Examination of marine engineers (less re- | | | | Contingencies | | 169 | 8 | 10 |
| funds) | 195 | 10 | 0 | • | | | | |
| , | | | | | | | | |
| and the second s | £9,720 | 17 | 4 | | | £8,890 | 0 | 2 |
| | | | | | | | | |

No. 19.—Return showing the Names of Owners of Additional Boilers and Transfers which require to be in charge of duly certificated Engine-Drivers.

| Name of Owner. | Where Boiler used. | Purposes for which | Horse-power. | Diameter of Cylinders of Engines, 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. |
|---|------------------------|---|--------------|--|---|--|
| | | AUCKLAN | D DI | STRICT. | | |
| Arabiwi Sawmilling Co | | | . 30 | | Second class | Late Direct Supply Co. |
| Astley, E | New Lynn | · . · · · · · · · · · · · · · · · · · · | . 29 | | Locomotive and | Late S. Astley & Son. Size of cylinders amended. |
| · · | | į. | | 1 | traction | Sizo of Cylinders amended. |
| Auckland Gas Co | , | | . 100 | | Second class | ,, |
| Auckland Farmers' Freezing | Glasgow | 1 7 | | 19 & 28; 10 | First class | " |
| Co. Ditto | | | . 84 | & 8 Ditto | | |
| | " | | 84 | | <i>"</i> | " |
| Auckland Harbour Board | Auckland | Sand-pump . | . 65 | | , | , |
| Auckland Meat Co | Mount Roskill | Abattoirs . | . 16 | 14, & 24 10 | Second class | Late R. Salmon (Ltd.). |
| Avondale Brick & Pottery | Auckland | | . 55 | | " | |
| Co. | | Brickworks . | . 30 | 12 | , | Size of cylinders amended. |
| Bartholomew Land & Timber Co. | Ngatira | Hauling | . 12 | Two 8 | Locomotive and traction | Additional. |
| Bayly, W. B | Kihikihi | | . 6 | | Ditto | |
| Bennett, J | Ongarue | Sawmill | . 25 | 10 | Second class | Late J. McGrath; size of cylinders amended. |
| Bennett, James | | | . 15 | | , | Additional. |
| Brett Publishing Co. (Ltd.) Browne, S. J | Auckland Mangawai | | . 61 | | First class Locomotive and | Size of cylinders amended. Late Ellis & Burnand. |
| | | i i i i i i i i i i i i i i i i i i i | . " | 1 00 11 | traction | |
| Carder Bros. & Co | Auckland | Pottery works . | . 20 | 9 | Second class | Late Hancock & Co.; size of |
| Carruth, Robert | Papatoitoi | General | . 6 | 8 | Locomotive and | cylinders amended. Size of cylinders amended. |
| Cook II III & Co | XX71 | | ما | | traction | , |
| Cook, H. F., & Co Daydawn & Norfolk Mines, Thames | Whangumumu Thames | Boiling-down Crushing and air | | | Second class First class | Late Mrs. A. G. Trower. |
| Ditto | , | compressor Ditto | . 35 | 143 & 16 | | <u>"</u> |
| Devonport Borough Council | Takapuna | Pumping . | . 30 | 12 & 24 | " | Size of cylinders amended. |
| Direct Supply Co | Auckland | Furniture factory | . 30 | 13 & 24 10 & 17 | ,, | " |
| Donald & Edenborough | Rarotonga | Sawmill | . 18 | 10 | Second class | Additional. |
| Ellis & Burnand | Mangapuhi Hamilton | ,, | | Two 141/1 | First class | Size of cylinders amended. |
| Ferguson, J. H | Karaka | General . | | 8 | Locomotive and | Late Comrie & Ferguson. |
| Ferro-concrete Co | Auckland | Pile-driving . | . 19 | Two 81 | traction Second class | Additional. |
| ,, | , | Hoist | | Two 84 | " ·· | w |
| Forsman Bros | Waharoa | General | . 6 | 8 | Locomotive and traction | " |
| Fredsburg, A | Tabeke | Flax-mill . | . 25 | 10 | Second class | |
| Gibbons, R. P | Kopu Auckland | Sawmill | | 161 | First class | Size of cylinders amended. |
| Hellaby, R. & W | Auckland | Boiling-down Freezing | . 50 | 13 12 | Second class! | . " |
| " | , | , | . 79 | 8 | , | " |
| Hikurangi Coal Co Jury, W. H | Hikurangi Rangiriri | Pumping . Flax-mill . | 1 | Two 8½ 10 | , | Late Waro Coal Co. Size of cylinders amended. |
| Kaipara Timber Co | Grahamsfern | Sawmill | . 105 | 36 & 18 | First class | Additional. |
| Kauri Timber Co | Tairua Whangapoa | Traction | | 19 1 & 36 Two 8 | Locomotive and | Size of cylinders amended. Additional. |
| • | | | | | traction | |
| Kay Bros | Paterangi Westfield | Threshing . Manure-works . | | 8 14 | Ditto Second class | Late Jarrett Bros. |
| (Ltd.) | | | . zə | T.# | Second class | Size of cylinders amended. |
| Knight, B. L Livesey, J. W | Katikati Waiotapu | Sawmill | 1 | 141 & 11 | First class | Tota Waistan Miss |
| Lynn & Popplewell | Mokai | Flax-mill . | . 16 | 9 Two 8 1 | Second class | Late Waiotapu Flax-mill Co. Additional. |
| Marbutt Carving Co | Auckland | Wood-working . | . 18 | 10 | ,, | Late R. P. Gibbons; size of |
| Moir, J | Fernbrook | Sawmill . | . 18 | 9 | | cylinders amended. Additional. |
| N.Z. Brick, Tile, & Pottery Co. | New Lynn | Brick & tile making | 3 1110 | 13 & 22 | First class | " |
| N.Z. Dairy Association N.Z. Government Public | Auckland Kakahe | Dairy factory . Sawmill . | | 10 Two 94 | Second class | Late Onewhero Dairy Co. Size of cylinders amended. |
| Works Department | | | | | | the state of the s |
| Ditto | Takapuna | Idle | 16 16 | Two 91 | ,, | Additional. |
| N.Z. Laundry Co | Auckland | Laundry | 43 | 10 | " | |
| N.Z. Portland Cement Co. | Limestone Island | Cement-works | 96 | 12 & 20, 16 & 24,9 | First class | Size of cylinders amended. |
| N 41 0"10 | Ditto | " | | Ditto | | |
| Northern Coal Co | Kiripaka Hikurangi | Hauling | 00 | Two 82 Two 52 | Second class Locomotive and | Late Kiripaka Coal Co. Additional. |
| , | | * | i | TM0 02 | traction | Additional. |
| . ," | , ! | | 20 | Two 57 | Ditto | Size of cylinders amended. |

| Name of Owner. | Where Boiler used. | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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 DIST | RIC | T—continue | i. | |
| Northern Coal Co Northern Roller Flour-mills | | Hauling & pumping Flour mill | 65 56 | Two 10 16 & 30 | Second class First class | Additional. |
| Ngunguru Sawmill Co | Auckland Ngunguru | | | 13 | First class | Late Elwarth & Knutzen. |
| Onehunga Borough Council | Onehunga | Pumping | 26 | Two 18½ | First class | Additional. |
| Onehunga Sawmilling Co. (Ltd.) | ,, | Sawmill | 40 | 15 & 18 | ,, | Late Kauri Timber Co. |
| Ditto | ,, | ,, | | 18 & 15 | | ,,, |
| Otway Bros Otway, C. E | Waihou Port Waikato | Flax-mili | 25 21 | 11 9 1 | Second class | Additional. |
| Otway, C. E Parker, W. J | | Log-bauler | | Two 71 | , | # # |
| Pascoe, Elias | Mount Eden | Stone-breaking | 17 | 9 | ,, | Late J. G. White & Co., New- market. |
| Puketapu Sawmilling Co | Parihaka Matapuna | | 42 20 | 16 Two 9 | First class Locomotive and traction | Late Parihaka Timber Co. |
| Pungapunga Sawmill Co | Taumarunui | Sawmill | 78 | 17 | First class | ,, |
| Redshaw, J | Richmond | Steaming | | 8 10 | Second class | Late Thompson & Gardner. |
| Reid, Marshall, & McKenzie | Kawakawa Matarua | ! | 20 26 | 10 | " | Additional. |
| Steel Bros | Oxford Bush | Sawmill | | 11 | , | Size of cylinders amended. Late N.Z. Timber Co. |
| Stewart & Hall Strang Bros | Opua Te Aroha | Threshing | 30 6 | $\begin{vmatrix} 12rac{1}{4} \\ 7 \end{vmatrix}$ | Locomotive and | Size of cylinders amended. |
| | | | 42 | 11 | traction | Additional. |
| Subritzky & Hansen Sulenta, G | | Flax-mill | | 10 | Second class | " |
| Suttie Bros | Onehunga | | | 10 14 | , | Late Puketapu Sawmilling Co. |
| Taumarunui Sawmilling Co. Taupiri Coal-mines Co. (Ltd.) | | Sawmill Pumping & winding | 25 75 | 93 & 18 | First class and | |
| , | ,, | Winding, &c | 42 | Two 8, two 9, & two 114 | winding Ditto | " |
| ,,, | ,, | Winding | 77 | Ditto | , | " |
| " | ,, | Winding, &c | 42 20 | Two 111 | " | Late Colonial Ammunition Co.; |
| " | ,, | ,, | | _ | " | size of cylinders amended. |
| " | Extended Mine, | Winding & pumping | 30 | Two 18 Two 18 | ,, | Size of cylinders amended. |
| " | Huntly | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 30 | | | " |
| , * * * * * * * * * * * * * * * * * * * | Huntly | Pumping | 14 | Two 7, two | First class | " |
| Taupiri West Coal Co Taupo Totara Timber Co | Mokai | Coal-mining Hauling | 35 13 | Two 20 Two 8 | Locomotive and traction | Late Kauri Timber Co. Additional. |
| Thompson & Hill Union Collieries Co | Auckland Maramarua | Jam-factory Pumping & hauling | 40 25 | 10g Two 10 & two 5 | Second class | Size of cylinders amended. |
| Waihi Gold-mining Co | Waihi, No. 6 | Winding | 70 | Two 30 | Winding | " |
| " · · | Ditto Waihi, No. 2 | , | 70 70 | Two 80 Two 114, | ,, | " " |
| <i>"</i> | shaft | | | two 7, & | , | " · |
| <i>"</i> | Ditto Waihi | Pumping, winding, | 70 64 | Ditto 60 & 110, | First class and | " |
| | | & air-compressor | | 35 & 70, 14 & 30, two 8, two 12, two 6, & | winding | |
| , , | ,, | Ditto | 64 | 14, & two 12 Ditto | Ditto | ,, |
| ,, | ,, | , | 56 56 | " | ,, | " |
| Waihi Beach Gold-mining Co. | ,, | Gold-mining | 35 | Two 8 | Second class | Late Alpha Gold-mining Co. |
| Waihi Grand Junction Gold- | ,, | Motor-wagon | 4 | 41 & 7 | Locomotive and traction | Additional. |
| mining Co. Waihi Syndicate Gold-mining Co. | ,, | Winding | 63 | Two 10 | Winding | Late Waihi Grand Junction Gold-mining Co.; size of cylinders amended. |
| Waotu Timber Co Watkins Bros | Waotu Raglan | Sawmill Log-hauling | 16 8 | Two 9 7‡ & 11 <u>‡</u> | Second class Locomotive and traction | Late Taupo Totara Timber Co. Late Assets Realisation Board. |
| | ,, | Sawmill | 30 | 124 | Second class | Late Cashman Bros. |
| ,, | Naumai | ,, | 65 | Two 15 | First class Second class | Size of cylinders amended. |
| White-pine Co | | Lounder | 10 | l u | | |
| White-pine Co | Auckland | Laundry Printing | 43 53 | 9 12 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | " |
| White-pine Co | Auckland | | | | Į. | " |

RETURN showing the Names of Owners of Additional Boilers and Transfers, &c .-- continued.

| Name of Owner. | Where Boiler used. | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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 N | ORT | H DISTRIC | T. | |
| Booth, Douglas | West Oxford | Sawing | 8 | 9 | Locomo ive and | Additional. |
| Bowron Bros | Woolston Greendale | Tannery Threshing | 1 ^ | 12 & 21½ 816 | traction First class Locomotive and traction | |
| Canterbury Frozen Meat & Dairy-produce Export Co. Canterbury Frozen Meat Co. | . ! | Freezing | 100 | T '. | First class | (|
| " | | , | 40 | 9 14 2 25 | First-class | Additional. Size of cylinders amended. |
| Canterbury Tramway Co | Christchurch | Hauling | 1 0 | | Locomotive and traction | " |
| Chapman & Son | Kaiapoi | Locomotive-work Chaff-cutting | 8 | Two 7 | Ditto | Late H. A. Brundell, Kaiapoi |
| Christehurch Brick Co | | | 30 | 12 & 23 | First class | Additional. |
| Christchurch City Council | Christehureh | Electric light | 30 103 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | First class | Size of cylinders amended. |
| | | • | | 3 8, 3 10, 3 14, 3 17 | | į |
| u | н • • | · · | 103 | 3 7, 3 12, 3 8, 3 10, 3 14, 3 17 | ,, | " |
| " | Sockburn Abat- | Water-heating | 17 | Nil | Second class | Late Kaiapoi Woollen Co. |
| Christohurch Gas Co | toirs Christchurch | Gasworks | 36 | One 12, one 9, | Ditto | Size of cylinders amended. |
| Christohurch Meat Co | Islington | Freezing, &c | 80 | one 7 15 & 27, 16 & 30, | First class | |
| Christchurch Tramway Board | Christchurch | Locomotive-work | 20 | 10 & 18 Two 10 | Locomotive and traction | Additional. |
| Ditto Clinton, Nicolas | Greendale | Electricity Threshing | 208 | Turbine 9 | First class Locomotive and traction | Late Holland & Watson, Greendale. |
| Clinton, Peter | Springfield | Brickmaking | 8 20 | 9 7 | Ditto Second class | Size of cylinders amended. Late Yarmouth Oil clothing Co., Christchurch; size of |
| Crump, D | Springston | Threshing, &c | 8 | 6 & 10 | Locomotive and traction | cylinders amended. Late Geo. Thompson, Prebbleton. |
| Davis, H. E | Christchurch Doylest n | Threshing only Foundry Threshing, &c | 9 30 7 | 6 & 10 & 6 & 8 8 8 8 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 | Ditto Second class Locomotive and traction | Size of cylinders amended. Late Boag & Cook, Doyleston; size of cylinders amended. |
| | " | " | 8 9 | 6 & 10 1 61 & 10 | Ditto | Late Boag & Cook, Doyleston. Late Boag & Cook, Doyleston! size of cylinders amended. |
| Everest, George | Taitapu Woolston | Threshing Excavating steam- navvy | 8 7 | 8\frac{2}{3} & 5\frac{1}{3} | Locomotive and traction | Late Jas. Streeter, Taitapu. Additional. |
| Greenslade, John Holland, A. G | Prebbleton Kirwee | Threshing only Threshing, &c | 8 7 | 61 & 10 81 | Ditto | Size of cylinders amended. Late J. G. Clarke, Kirwee. |
| Humm Bros | Waddington Christchurch | Threshing | 6 | 7 12 & 21 | | Size of cylinders amended. |
| Hunsley, Wm | 1 | ļ | 15 | 12 & 21 | | <i>"</i> |
| Lyttelton Harbour Board | Dock, Lyttelton | Pumping | 15 15 | 13½ & 13½ 13½ & 13½ | Second class | " |
| McCartney, R | Taitapu " | General | 15 10 | 13 & 13 & 13 & 6 & 11 & 6 & 6 & 6 & 6 & 6 & 6 & 6 & | Locomotive and traction | Additional. |
| McCrostie & Westwood McCrostie, J. W | Greendale | Threshing, &c General | 9 8 | 6½ & 10 | Ditto | Late J. W McCrostie. Late Electrical Construction Co., Christchurch. |
| McCrostie, W McDonald, Thos Manning & Co | Waikuku Christchurch | Threshing Fellmongery Brewery | 8 20 50 | 6½ & 10½ 12 7 | Second class | Additional. Late J. C. Andrews, Waikuku. Size of cylinders amended |
| Morgan, E | Ashley | General | 6 | 83 | Locomotive and traction | Additional. |
| Nelson Bros | Hornby | Freezing | 30 | 13 & 25 | First class | Size of cylinders amended. |
| Nicholls, Wm | Belfast | Fellmongery | 30 20 | 18 & 29 9 | Second class | Late N.Z. Provision and Produce Co., Christohurch. |
| Oakley, Geo | Templeton | Roadworks | 4 | 4½ & 6 | Locomotive and traction | Additional. |
| Parkinson, Walter F | Kaituna | Threshing | 8 8 | 9 | Ditto | Late Robert Clough, Little River. |
| Patterson & Jones | Hororata | Roadwork | | 61 & 10 | ,, | Late Electrical Construction Co., Christchurch. |
| | <i>"</i> | General | 8 | 94 | , | Late W. A. McLaren & Co., Christchurch |

| Name of Owner. | | Where Boiler used. | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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. |
|--|-------|---|---|--------------|--|--|---|
| | | CAN | TERBURY NORTH | I DI | STRICT—co | ntinued. | |
| Pitcaithly & Co Riccarton Road Board | | Halswell Riccarton | Stone-crushing Roadwork | 22 7 | 11 & 14 ² / ₄ 5 ² / ₄ & 9 | First class Locomotive and traction | Additional. |
| Ridder, E. T Robson, T. T Russell & Keltie | ••• | Linwood Avonside Hororata | Road-roller Fellmongery General | 6 22 8 | 8 9 1 9 | Ditto Second class Locomotive and traction | Late G. F. Wright, Annat. |
| Scott Bros | | Christchurch | Electric light and | 57 | 14 & 24 | First class | Additional. |
| ,, | | | Ditto | 57 | 14 & 24 | , | • |
| <i>u</i> ••• | • • | | Engineers' tools | 57 20 | 12 & 21 12 & 20 | | " |
| Scott & Sellers | • • | , | Sawmill | 16 | 12 | Second class | Late Colonial Skewer and |
| Shepherd, J. E. L. | | Rangiora | Chaff-cutting | 8 | 9 | Locomotive and | Timber Co., Christchurch. Late Reid Bros., Bennett's. |
| Sky-ship Syndicate, The | | Exhibition | Šky-ship | 12 | 8 & 8 | traction | Late Cleveland Bridge Co., |
| Smith & Smith | | Grounds, Ch'ch. South Belt, | Sawmill | 35 | 1113 | Second class | Springfield. Size of cylinders amended. |
| | | Christchurch | ma) 1.7 | | | T | |
| Walker, James Wardell Bros | •• | Dunsandel | Threshing Electric light and | 50 | 9 & 14 | Locomotive and traction First class | Late Robert Meaclem, Ham- stead. Size of cylinders amended. |
| Wardell Bros | •• | Jim Boomaton | freezing |) | İ | _ 1150 Oxugus | 5.20 or Symmon wittended. |
| . " | | ,, | Electric light | 35 | 8 & 131 | | ,, |
| Watson, G | ٠. | N T | Sawmill | 25 | 10 71 & 10 | Second class Locomotive and | |
| White Bros | • • | N. Loburn | Threshing, &c | 8 | 15 6 10 | traction | " |
| Zealandia Soap Co. | | Heathcote | Soap-works | 30 | 8 | Second class | Late Timaru Milling Co.; size of cylinders amended. |
| " | •• | | | 25 | 10 | ••• | Size of cylinders amended. |
| | | | | | | | |
| | | | CANTERBURY SO | UTI | i pistrici | 2. | |
| Ashburton Woollen-mills | 3 | Ashburton | Woollen-mills | 30 | Nil | Second class | Size of cylinders amended. |
| W | ٠. | _ " | | 30 | Nil | | |
| Benbow, W. C | •• | Temuka Waimate | General | 8 | 9 61 & 11 | Locomotive and traction Ditto | Late Benbow & Barney; size of cylinders amended. Additional. |
| Buckingham, W. J. Canterbury Farmers' Co- | on. | l | For sale | 7 | 81 | , | Late H. Batchelor, Fairlie. |
| Cartwright & Douglas | | Temuka | · ~ • | 8 | 91 | | Size of cylinders amended. |
| Clark, W. J | | Levels | . " | 8 | 61 & 11 | | Additional. |
| Douglas, J | • ,5 | Rakaia Holm Station, | ,, | 6 8 | 8 61 & 11 | | Late F. Dynes & Co., Rakaia. |
| Elworthy, A. S | • • | Timaru | , | " | 02 11 | | Addisional. |
| Elworthy Bros | • • | | ,, | 8 | 61 & 101 | | Late Canterbury Farmers' Co- operative. |
| Fitzgerald, Nicholas | • • | Tinwald | Hauling | 8 10 | 6½ & 10§ 7 & 11 | , | Size of cylinders amended. Additional. |
| Grigg, John Harkness, W. S | • • | Longbeach Levels, Timaru | Threshing | 8 | 61 & 101 | " | Additional. |
| Harris, H. R. | | Washdyke | | 20 | 8 | Second class | ,, |
| Hayhurst, J. M | ٠ | Temuka | General | 8 | 9 | Locomotive and | Late W. Brogden, Temuka. |
| Hopkinson Bros. | | | , | 8 | 9 | traction Ditto | Size of cylinders amended. |
| Keane, J. M | | Pleasant Point | | 8 | 61 & 101 | | " |
| Kirk, H. B. | | Timaru | Brickmaking | 30 | 12 & 20 | First class | Additional. |
| Knox, S. & M | • • | Ashburton | General | 8 | 61 & 101 | Locomotive and traction | Late Reid & Gray, Ashburton |
| McIntyre, David | • • | Forks, Ashbur- | | 8 | 6½ & 10g 9 | Ditto | Size of cylinders amended. Late John Carson, Winslow. |
| | | ton | | 1 - | | | |
| Preddy, George Rae, James | •• | | Threshing & haul- | 8 | 8 1 | | Size of cylinders amended. Late George Lawrie, St. Andrew's. |
| Robertson, John | | Temuka | ing General | 8 | 81 | | Size of cylinders amended. |
| Rollit, Thomas | | A-hburton | Flour-mill | 14 | 81 & 122 | First class | Additional. |
| Smith, J., & Son Smith, James E. | • • | Claremont | | 52 6 | 11 7 1 | Second class Locomotive and traction | Size of cylinders amended. |
| Stewart, James | | Timaru | General | 8 | 9 | Ditto | |
| Stickings, Charles | | Pleasant Point | | 5 | 6 1 | , | Late Yates, Canterbury. |
| Taylor, W. J. | | Ashburton | | 8 | 9 <u>\$</u> | •• | Late T. Taylor, Flemington. |
| Thorn, A | | Winchmore, | General | 8 | 9 | <i>"</i> | Size of cylinders amended. |
| Tiffen, James | | Ashburton Makikihi | . , | 6 | 8 | | Additional. |
| Vincent, A | | Timaru | Stone-crushing | 8 | 9 | ,, | ,, |
| Watt, James | ٠. | | | 8 | | | Late T. Perks, Ashburton. |
| Wilson, Thomas | • • • | Tinwald | " ·· · · · · · · · · · · · · · · · · · | 8 | 5 & 10 , 6⅓ & 10§ | ,, | Additional. Size of cylinders amended. |
| •• 4 | • • | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ,, ,, ,, | , , | -4 8 | , , , | , and any any and any any and any any and any any and any any and any any and any any any any any any any any any any |

| Name of Owner. | Where Boiler used. | Purposes for which used. | Ногве-рожет. | Diameter of Cylinders of Engines, in Inches. | Class of Driver required. | Additional Bollers; Names of Late Owners of Transferred Bollers; And also showing where Size of Cylinders are now amended. |
|--|---------------------------------|---------------------------------------|---------------------------|---|---------------------------------------|--|
| to the second se | No. | HAWKE'S BAY I | ist | RICT. | | The first of the second of the |
| Alpha Sawmill Co. | Gisborne | Hauling | 6 | 61 & 111 | Locomotive and | Additional. |
| | 27. | Sawmilling | 62 | 123 & 193 | traction First class | Size of cylinders amended. |
| Butcher, H. F | Patoka | Sawmill | 23 35 | 12\frac{3}{4} & 19\frac{3}{4} 15\frac{3}{4} | , , , , | Additional. |
| Carlson, H | Pukehou | , , , , , , , , , , , , , , , , , , , | 23 6 | Two 81 6 & 10 | Second class Locomotive and | " |
| · · · · · · · · · · · · · · · · · · · | No. 2, Smith's | | 20 | | traction Second class | Size of cylinders amended. |
| a to to | siding | | 10 | 138 | Second Class | Size of Cynnders amended. |
| Gisborne Sheep-farmers' Co- | Gisborne | General work | 35 | 138 9 & 16, | First class | " |
| operative Freezing Co. | | , | 35 | 12 & 22 9 & 16, | | , , |
| Hall, F | | Threshing | 6 | 12 & 22 9 | Locomotive and | Additional. |
| | ,, | Sawmill | 25 | 10 & 16 | traction First class | Late Drummond Bros., Te |
| Hawke's Bay Dairy Co | Woodville | Butter-factory | 20 | 81 | Second class | Karaka. Late Beattie, Lang, & Co. |
| | Awatoto | Soap-works | 50 | 71/2 | ,, | Dannevirke. Late Saunders, Gilbert, & Co |
| nery Co. Higgins, Lawrence | Moteo | Threshing | 8 | 61 & 81 | Locomotive and | |
| Hunter, W. G | Ngapaeruru | Sawmili | 12 | 81 & 8 <u>1</u> | traction Second class | ders amended. Late John Peters, Ngapae |
| Jones, James | Waerengaahika | Threshing | 8 | 61 & 11 | Locomotive and | ruru. Additional. |
| Kemp, C. H. | Puketitiri | Hauling | 7 | 8 1 7 & 11 | traction Ditto | * |
| McLeod & Seifert Manson & Co | Takapau Tikokino | Flax-mill Sawmill | 12 35 | 7 & 11 161 | Second class First class | Late A. Siefert, Takapau. Size of cylinders amended. |
| Morrison, Donald | Makotoku | , | 12 | 81 & 81 | Second class | Late Morrison Bros. |
| | Napier Gisborne | Brewery Freezing | 30 43 | 8 12, 13, & 25 | First class | Late Robjohn & Sons, Napier. Size of cylinders amended. |
| | . ·· | | 43 50 | 12, 13, & 25 12, 13, & 25 | <i>"</i> | <i>"</i> |
| i . | Hastings | Threshing | 6 | 6 & 10 | Locomotive and traction | |
| Spiers, A | Wanstead | Flax-mill | 16 | 81 & 81 | Second class | Late William Toogood, Fea- therston. |
| Waikopiro Sawmill Co | Waikopiro | Sawmill | 85 | 14 | ,, | Late Collett & Edkins, Danne- virke; size of cylinders amended. |
| | .37 | MARLBOROUG | H I | DISTRICT. | | |
| | Havelock | Log-hauling Freezing | 15 106 | $8\frac{1}{4} & 8\frac{1}{4}$ 12, 22, $10\frac{1}{4}$ | Exempt* First class | Size of cylinders amended. |
| , | | , | 12 | $10\frac{1}{2}$, 12, $2\overline{2}$ | | " |
| Higgins, John | Seddon | General | 12 10 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | Additional. |
| Osgood, W. S | Picton | Brickmaking | 16 | 9 1 | traction Second class | Late E. Tonks, Wellington; |
| Wakamarina Gold-dredging | Wakamarina | Gold-dredge | 15 | 7 & 11 1 | ,, | |
| Co. Wellington and Marlborough | Picton | Gement-works | 61 | 8, 14, 22 | First class | Co., Wakamarina. |
| Lime and Cement Co. | , | | 64 | 14, 22, 8 | ,, | Ditto. |
| · · · · · · · · · · · · · · · · · · · | • | NELSON NORT | | | • | e e e e e e e e e e e e e e e e e e e |
| Fritz. A.J. Bockman | Upper Moutere | Threshing & chaff- ing | | 8- | Locomotive and traction | Late H. H. Schwass, Hope. |
| Falconer, F. W | Rockville | | 30 | 7 & 11 | Second class | Late Kaituna Gold-dredging |
| Grant, Wm | Slate River | Gold-dredging | 18 | 8 & 123 | First class | Late Slate River Gold-dredg- |
| Griffen & Sons Langlands, Wm., & Co | Nelson | Biscuit-factory Road-wagon | $\frac{20}{7\frac{1}{2}}$ | 8 & 12 4 & 7 | Locomotive and | ing Co. Size of cylinders amended. Late Robert Ellis, Motupiko. |
| | Aniseed Valley Pretty Bridge | Sawmill | 20 6 | 10 1 72 | traction Second class Locomotive and | Late Peart Bros., Nelson. Additional. |
| | Valley Puponga | Dredging | 36 | 7 & 11 <u>1</u> | traction Second class | " |
| | | Hauling and pump- ing | 40 | Two 8, two 9 | , , , , , , , , , , , , , , , , , , , | Size of cylinders amended. |
| | Puponga Nelson | Ditto | Ì | Two 8, one 9, & one 9 | * , | Size of Chinacts amenaed. |
| | | Sash and door fac- tory | | 12 8 | T.ocomotive and | Tate J T Snowden Duiets |
| | | Threshing & chaff- ing Sawmill | ı | 8 | Locomotive and traction | Late J. T. Snowden, Bright- water. |
| | Marahau Belgrove | Sawmill | 8 | 9 8 1 | Ditto Locomotive and | Late Senior Bros. Late H. Tunnicliffe. |
| Whelham, A., & Co. | Takaka | Wood-working | 16 | 8 <u>1</u> | traction Second class | Late J. H. Walker & Sons, |
| | i | × 1 | 1 | | | Takaka. |

^{*} When moved from place to place by its own motive power then traction and locomotive driver required.

| Name of Owner. | Where Boiler used. | Purposes for which used. | HO | Diameter of Cylinders of Engines, 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. |
|---|--|---|-----------------|---|--------------------------------------|--|
| | Redman's Creek | NELSON SOUT | H D1 | STRICT. 7 & 111 | Second class | Late A1 Gold-dredging Co. |
| A1 Gold-dredging Syndicate Blackball Coal Co. | Ngahere | Dynamo and aerial | | 12 & 9 | First class | Size of cylinders amended. |
| | Blackball | Hauling & dynamo Driving fan | 20 20 20 | Two 15 14 8 & 12 3 | Ditto Second class First class | Late Donovan and party |
| Boatman's Creek Syndicate | Boatman's Creek Cape Foulwind | Gold dredging | 28 | 17 3 6 | Ditto | Cronadon. Size of cylinders amended. |
| Bowater & Bryan Burke, M. J. | Karamea | ,, | 25 28 50 | Nil 14 16 Three 14 & | Second class First class | Late Porter & Walker, Karame Size of cylinders amended. |
| Consolidated Goldfields of New Zealand (Ltd.) Ditto | The Golden Fleece Mine Globe Hill Specimen Hill | Crushing-battery & air-compressing Winding Quar z-battery | 30 30 | one 22 Two 10 Two 7 5 16 | Winding Second class | Late Progress Gold-mining Co Size of cylinders amended. |
| | B shaft, Globe Hill | Winding & air- compressing | 85 | Two 16, two 14, one 15, one 6 | First class and a | <i>"</i> |
| | Ditto Golden Fleece Battery | Ditto Quartz-battery and air-compressing | 85 60 | Ditto Three 14, one 22, one 13½, one 10, two 11½, two 14 | Ditto First class | |
| , | Ditto Blackwater | Ditto Sawmill | 60 12 | Ditto Two 8 16 | Second class | Late Hannah and Ross; siz |
| De Filippi, Stephen Hessey, Cameron, Tacon, & | Buller River Boatman's Creek | Gold-dredging Dredge (dismantled at present) | 30 16 | 8 & 123 7 & 111 | First class . Second class . | Late Mokoia Gold-dredging C |
| Co. Ditto Hobbs, Jas. | Mokihinui | Gold-dredging Winch | 20 20 | 8 & 12 3 Two 6 | First class . Second class . | . Ditto. |
| Karamea Sawmilling Co New Zealand Government State Coal-mines | Karamea Westport | Sawmill Briquette-works | 30 64 | 14 ¼ Two 14 | First class . | Additional. |
| Ditto | ,, | ,, | 64 64 | Two 14 Two 14 | * | " |
| · · · · · · · · · · · · · · · · · · · | Point Elizabeth | Driving fan & haul- ing coal | 49 | Two 9, one 10, 7, & 11, one 5, & two 4 | | , |
| ,, | Greymouth | Hauling coal | 49 | Two 5, two | | Size of cylinders amended. |
| Table | Coal Creek | Driving fan and hauling coal | 49 | 10, 7 & 11, one 5, & | | , |
| Point Elizabeth Railway and Coal Co. | Brunnerton | Coal-mining | 35 | one 4 Two 10½, one 12, & one 13½ | First class . | |
| Ditto Tyneside Proprietary Coa Co. (Ltd.) | ; :: | Winding coal only | 35 20 | Ditto Two 8½, two 8, one 9, two 7½, two 4½, two 5, | | |
| Westport Coal Co. | Coalbrookdale. | Air - compressor & | 80 | one 7 Three 14½ | | · · · · · · · · · · · · · · · · · · · |
| Tresuport Coar Co. | | fan Ditto | 80 | one 16 Ditto Iwo 18, tw | · . | · · |
| ,, | Denniston . | Main haulage and electric lighting | | 12, two 8, four 6, & three 5 | | • |
| ······································ | | Ditto | 84 84 | | | ,, |
| * | Iron Bridge | Hauling & dynamo | 84 | One 10, on | | |
| | Millorton | Air - compressing fan, and dynamo | , 10 | 16, & one 6 Two 14 ₃ & three 9 | | , |
| , | <u>}</u> | Ditto | | Ditto | " | · · · / // // // // // // // // // // // |
| ************************************** | | Air-compressing | . 58 | | | , , , , , , , , , , , , , , , , , , , |
| | . , , , , | Air-compressor and | 55 | one 61 | ,, | • |
| | | Ditto | . 58 . 86 | | i " | |
| | • " | . • | . 0 | | 1 " | · - |

| Name of Owner. | Where Boiler used. | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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. | | | | | | | | | |
| Barewood Gold-mining Syn- dicate | Barewood | Gold-mining | 16 | Two 8 | Winding | Late Enfield Gold-dredging Co. | | | |
| Bruce Coal Co | Balclutha Milton | Flour-mill Hauling | 12 16 | 7 & 11 1 7 & 11 1 | Second class | Late Cluth Milling Co. Late No. 1 Empire Gold- dredging Co. | | | |
| Bruce Railway and Coal Co. | Fortification | , | 6 | 9 | Locomotive and traction | Size of cylinders amended. | | | |
| Burt, A. & T | Dunedin | Machine tools | 25 30 | 108 | First class | * " | | | |
| Cairntrodlie, Gold-dredging | Upper Poolburn | Boiler-shop Gold-dredging | 30 14 | Two 16 7 & 11 | Three second | Late Wallis and party. | | | |
| Christie Bros Dunedin City Corporation | Saddle Hill Dunedin | Hauling Electric trams | 12 95 | Two 8½ 12 & 22 | Second class First class | Additional. Size of cylinders amended. | | | |
| Dunedin Engineering Co Golden Chain Gold-dredg- ing Co. | Near Ettrick | Machine tools Gold-dredging | 95 72 20 | 12 & 22 16 & 10 8 & 123 | First class & two | Late Majestic Gold-dredging Co., Cromwell. | | | |
| Gregg, Wm., & Co. Lovell's Flat Coal Co. McDonald, Alex. | Dunedin Outram | Starch-factory For sale General | 18 56 8 | 10 Nil 9 | Second class Locomotive and | Size of cylinders amended. Late Shag Point Coal Co. Late Geo. McDonald. | | | |
| McLeod Bros. (Ltd.) New Bendigo Gold-dredging Co. | Dunedin Gorge, Alexandra | Candle-making Gold-dredging | 25 20 | 12 9 & 14 | traction Second class First & 2 seconds | | | | |
| New Zealand Government Asylums Department | Seacliff | Electric light | 43 | 8 & 13 | † | , , , , , , , , , , , , , , , , , , , | | | |
| Ditto New Zealand Government Public Works Depart- | Catlin's River | Stone-crushing . | 43 16 | 8 & 13 18 & 13 | † | Additional. | | | |
| ment Otago Gold - dredging Co., No. 3 | Island Block | Gold-dredging | 16 | 7 & 14 | One first & two | Late Jones and party, Island Block. | | | |
| Otago Granite Brick Co Otago Laundry Co Real McKay Coal Co | Anderson's Bay Dunedin Milton | Brickmaking Laundry Hauling | 56 62 12 | 16 6½ & 10½ Two 8 | First-class Second class Locomotive and traction | Size of cylinders amended. Additional. Late Lovell's Flat Coal Co. | | | |
| ,, | Fortification | | 16 | Two 83 | Second class | Late Lovell's Flat Coal Co.; size of cylinders amended. | | | |
| Ross & Glendining | Dunedin | Carbonising | 20 | Nil | | Late Mosgiel Woollen-factory | | | |
| " | Dunedin & Ros- | Coal-wagon | 5 | Two 41 | Locomotive and traction | Additional. | | | |
| Shacklock, H. E | Dunedin | Machine-shop | 32 16 | 12 | Second class | Tata N. C. Oli & Carl Ca | | | |
| Shiel Bros Shiels, J | St. Clair | Stone-crushing Flax-mill | 12 | 7 & 11 Two 83 | | Late N.Z. Oil & Coal Co. Late Keppel Bros. | | | |
| Stevens, A., & Co. | · | Flour-mill | 30 | 12 & 20 | First class | Size of cylinders amended. | | | |
| Todd Bros | Heriot | General | 8 | 9 | Locomotive and traction | · | | | |
| Trusler, S | Arthurton | | 8 | 9 | Ditto | Late Reid & Gray. | | | |
| | . G | SOUTHLAND | 6 6 | STRICT. | Locomotive and | Late Proudfoot & Steele. | | | |
| Aitken, George | Gore | Chaff-cutting Gold-dredging | 20 | 8 & 123 | traction First class | Additional. | | | |
| Alpine No. 2 Gold-dredging Co. | | Tal (1) | 30 | 83 | Second class | Late Sutherland & Girdler. | | | |
| Bichan, George Blair Bros Brown, J. & W | Mataura Glenham Kapuka | Chaffing | 14 | 73 & 113 612 | Locomotive and | Late Templeton Bros. Additional. | | | |
| Charlton Valley Gold- | Charlton Valley | Gold-dredging | 16 | 7 & 111 | traction Second class | , | | | |
| dredging Co. Coombs, C | Drummond | Threshing and | 8 | 9 | Locomotive and traction | ,, | | | |
| Cromwell & Bannockburn | Bannockburn | ploughing Pumping | 16 | 10 & 10 | Second class | ,, | | | |
| Coal Co. Oruickshanks, W Farrier, A | Waihopi Kapuka | Flax-mill Threshing | 12 8 | 91 & 91 9 | Locomotive and traction | Size of cylinders amended. Late Farrier Bros., Waituna. | | | |
| Fleck, Adam | Thornbury | Threshing and | 8 | 9 | Ditto | Late J. T. Fleck, Riverton. | | | |
| Fleming & Co Green, Thomas | Riverton Near Gore | Flour-mill Hauling | 15 16 | 12½ 5 & 10 | Second class | Late Mathew Tweedie. Late E. Girdler, Green Hills; size of cylinders amended. | | | |
| Hamilton & Co | Te Tua Gore | Sawmill Hauling | 12 8 | 8½ & 8½ 6½ & 10½ | Locomotive and traction | Late Hamilton & Galt. Additional. | | | |
| Jenkins, A. and J Knipe, George | Wallacetown Clifton | Hauling & threshing Chaff-cutting | | 9 | Ditto | Late Scannel & Butler, Dacre. Late A. E. D. Stuck, Riverton. | | | |

^{*}This boiler is connected with two other boilers which require a first-class driver. † Exempt under section 63 of "Inspection of Machinery Act, 1902."

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RETURN showing the Names of Owners of Additional Boilers and Transfers, &c .- continued.

| Name of Owner. | Where Boiler used. | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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. |
|---|--------------------------------------|--|----------------|---|-----------------------------|--|
| | - | COLUMNIA NID DIO | mpr. | OT | | |
| | | SOUTHLAND DIS | | | | |
| Koputai Gold-dredging Co. Kura Gold-dredging Co Lower Nevis Gold-dredging | Waikaia | Gold dredging | 20 20 16 | 8 & 13 8 & 12 } 7 & 11 } | First class Second class | Additional. Late Ngapara Gold-dredging |
| Co. | 110725 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | _ | | Co., No. 3. |
| McDonald, D. K McDonald, Peter | Mokoreta Dipton | Flax-mill Chaffing | 16 | 7 & 7 8 | Locomotive and traction | Late Parrott & Dougherty. Additional |
| McDona ¹ d, R. B McKinnon, A., jun | Edendale Gore | Threshing and flax | 8 8 | 6½ & 10½ | Ditto | Late McKinnon Bros. |
| Mears and McKay | Balfour | Chaffing & hauling | 8 | 81 | ,, | Additional. |
| Moffett Bros Muddy Creek Dredging Co. | Waikawa Wendon | Sawmill Gold-dredging | 36 20 | 13 1 7 & 11 | Second class | Late Gore Electric - light |
| | | ! | | | | Works; size of cylinders amended. |
| Murdoch & Roff | Waikawa | Sawmill | 16 | 8 & 13 | First class | Late Pioneer Gold - dredging Co., Waikaka. |
| Murray & Co., W. T Nicolson Bros | Underwood Near Mataura | | 130 14 | 10 81 & 81 | Second class | Additional. Late Blair Bros. |
| Ocean Beach Freezing- works | Island Ocean Beach | Freezing | 40 | 14 & 221 | First class | Size of cylinders amended. |
| Ditto | Bloff, Ocean | , | 40 | 14 & 221 | First class | |
| Paterson, W. H | Beach Near Waikaia | Gold dredging | 16 | Nil | Second class | Late Muddy Creek Gold- dredging Co., Waikaia; size |
| Perry, W. J | Oraki | Sawmill | 20 | 103 & 103 | First class | of cylinders amended. Late Invercargid Dairy Supply Co.; size of cylinders |
| Outagle George | Brown's | Crushing lime | 14 | 81 & 81 | Second class | amended. Additional. |
| Queale, George Riley's Beach Dredging Co. | Brown's | Gold-dredging | 20 | 8 & 12≩ | First class | , |
| Riverview Dredging Co | Waikaka Valley | | 20 | 8 & 13 | " | Late Sheddon's Rex Gold- dredge Co. |
| Smith, J | Fortrose | Hauling | 8 | 9 | Locomotive and | Late George Butel, Balfour. |
| Southland Timber Co | Near Otautau | Sawmill | 16 | Two 91 | Second class | Size of cylinders amended. |
| Southland Sand Brick Co. Spaden, Adam | Grasmere Waikaka Valley | Brickmaking Gold-dredging | 14 | 12 & 21 6½ & 10½ | First class Second class | Additional. Late Waikaka Forks Gold- dredging Co. |
| Stevenson, George | Gore and dis- tricts | Driving merry-go- round | 8 | 9 | Locomotive and traction | Late Baldwin and Thurston. |
| Bwi'zer's Dredging Co Todd, T., & Sons | Waikaia Waikiwi | Gold-dredging Pipe-works | 20 52 | 8 & 123 141 | First-class Second-class | Additional. |
| Todd, T., & Sons | ,, | Brickmaking | 10 | 14 1 | ,, | Size of cylinders amended. |
| Tressider & Sons, John | Glen Dhu | Threshing and ploughing | 8 | 9 | Locomotive and traction | Additional. |
| Voight, M. F | Pukerau | Threshing | 8 | 9 | Locomotive and traction | Late William Drake, Kapuka. |
| Waikaka, Gold dredging Co. Waikaia Venture Gold dredging Co. | Waikaka Valley Waikaia | Gold-dredging | 16 20 | 7½ & 11 8 & 12¾ | Second class First class | Size of cylinders amended. Additional. |
| Woodlands Meat - preserv- ing Works | Woodlands | Meat-preserving | 42 | 8 | Second class | Late Murison & McPhail, Bluff; size of cylinders amended. |
| - | 1 | m + 30 + 37 + 77 T | The | i motom | | Í |
| | | TARANAKI | | | | i T T.ii p. mi |
| Black, P. L | New Plymouth | Hauling | 5 | 4 & 62 | traction | Late Joll & Black, Waitara. |
| Borthwick, T., & Sons | | Brickmaking Freezing | 20 85 | | Second class First class | Size of cylinders amended. |
| ,, | , | | 70 | 11 & 16 | ,, | ,, |
| Egmont Co-operative Box | | Butter - box factory | 40 | | ,, | Late West Coast Refrigerating Co., Patea. |
| Eltham Co-operative Dairy Co. | , | Dairy factory | 30 | 101 | Second class | Additional. |
| Johnston, C. H | Waitara | Flax-milling, thresh ing, and chaff- cutting | | 6 & 10 | Locomotive and traction | " |
| Koru Sawmilling Co | Koru | 1 ~ '71' | 16 | | Second class | virke. |
| Mills & Rothery Opunake Sawmilling Co | | , | 25 28 | | First class | Late H. Mills & Co., Rahotu. Late H. Brown & Co., Ingle- wood. |
| Quinn Bros Ramsay & Co | Hawera Eltham & where required | Sash & door factory Oil-boring | 20 12 | 1 | Second class | |
| Rogers, C. E | Bell Block | Threshing | 6 | 54 & 94 | Locomotive and | |
| Taranaki Freezing Co | Moturoa | Freezing | | & 211 | traction First class | Size of cylinders amended. |
| Taranaki Petroleum Co | ,, | Oil-boring | | | Second class | Late Egmont Butter-box Factory. |
| | | | | | | |

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|--|---------------------------|---------------------------------------|--------------|---|--------------------------------|--|
| Name of Owner. | Where Boiler used. | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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. |
| | | WELLINGTO | N D | ISTRICT | | |
| Akatarawa Timber Co | Akatarawa | Sawmill | 16 | 10 <u>\$</u> | Second class | Additional. |
| A lender & Son | Petone | Soap-making | 20 | Nil | , | Late Thomas Price. |
| Anderson & Bennett Andrew, R. C | Taihape | Sawmill General | 30 6 | 14 51 & 10 | Locomotive and | Size of cylinders amended. Late H. J. Bowater; size of |
| Andrew, 10. C | | | | _ | traction | cylinders amended. |
| Austin, O | Foxton | Flax-mill | 24 25 | 83 & 125 121 | First class Second class | Size of cylinders amended. |
| Banks & Co | Mangatainoka | General work | 5 | 51 & 81 | Locomotive and | Additional. |
| • | T | 0: | | | traction | |
| Bartholomew, P | Levin | Sawmill | 44 25 | 16 12 | First class Second class | Late G. Simpson. |
| Blackball Coal Co | Wellington | Hoisting | 30 | 7 | , | Size of cylinders amended. |
| Burt, W. & T Cable & Co | Upper Hutt Wellington | Sawmill Foundry | 37 70 | 13 7 & 13 | First class | Late J. W. Reade, Upper Hutt. Size of cylinders amended. |
| Carlsen & Co | Mangamaire | Sawmill | 42 | 16 | <i>"</i> | Late Adam Burgess, Palmers |
| Chamberlain Bros | Masterton | General | 8 | 9 | Locomotive and | ton North. Late A. Fraser. |
| Chamberlain Dros. | | | | | traction | Date R. Plaser. |
| Christch'ch Patent Brick Co. | Kilbirnie | Brickmaking Flax-mill | 22 26 | 14 12 | Second class | Late N.Z. Patent Brick Co. Size of cylinders amended. |
| Coley, G Craig, W | Patiki | Plax-min | 14 | Two 8₹ | , | Late J. Brewer. |
| Craw, George | Tokomaru | , , , , , , , , , , , , , , , , , , , | 12 25 | 7 & 10 ½ | ,, | Size of cylinders amended. |
| Daniell, C. E., & Co | Masterion | Sash and door fac- | 44 | 12 § 16 | First class | " |
| ~ | | tory | | | | |
| Diamond Confectionery Co. Dimock, W., & Co. | Wellington | Steaming | 25 19 | 11 Nıl | Second class | Additional. |
| Drysdale, James | Nireaba | Sawmill | 38 | $12\frac{1}{2}$ | ,, | ,, |
| Edwards, R. G | Marton | Threshing | 6 | 8 | Locomotive and traction | Late A. Cockburn. |
| Fitchett & Lowe | Brooklyn, Wgtn. | Brickworks | 33 | 12 | Second class | Late Wellington Brickworks. |
| Frederick, A | Porewa | Ploughing, &c | 6 | 8 | Locemotive and traction | Late A. R. Fitzhertert. |
| Gabv, H., & Co | Wellington | Engineer's shop | 17 | 4, 41 & 61 | Second class | Size of cylinders amended. |
| Gardiner & Yeoman | Pongaroa | Sawmill | 20 | 11 & 81 | , | ,, |
| Gemmel, J Gower & Grice | Oroua Bridge Ohingaiti | Flax-mill | 12 40 | 7 & 11 13 | , | Late Pascal Bros. Size of cylinders amended. |
| Hodder & Tolley | Feilding | Flour-mill | 22 | Nil | ,, | ,, |
| Hoar & Baillie Hussey, Hanson, & Co | Eketahuna Bonnie Glen | Sawmill General | 16 | Two 42 8 | Locomotive and | Late J. C. Ewington. Late C. M. Galpin. |
| • | 1 | | | | traction | _ |
| Hutt Borough Council Imperial Dried-milk Co | Hutt Bunnythorpe | Road-roller Dried-milk factory | 150 | 8 & 4½ 16 | Ditto First class | Additional. Late Defiance Butter Co. |
| | ,, | , | 30 | 16 | , | |
| King, M. H | Ohakune | Sawmill | 25 36 | 10 16 1 | Second class | Additional. |
| Lind & O'Connor Luke & Co | Wellington | Engine r's shop | 45 | 7 ² / ₄ & 11 | Becond class | Late Dudson & Co. Size of cylinders amended. |
| Lvons, M | ٠ ا | Laundry | 25 | 9 | Locomotive and | Additional. |
| Managh, J. & G. | Halcombe | General | 7 | 52 & 9 | traction | " |
| Manawatu Meat and Cold | Palmerston | Freezing | 32 | 91/2 | Second class | " |
| Storage Co. Mitchell & King | Wellington | Pile-driving | 25 | 9 | ,, | ,, |
| Mokau Timber Co | Mokau | Sawmill | 42 | 16 | First class | , |
| McDonald, A | Foxton Petone | Flax mill Steam wagon | 12 | Two 81/2 4 & 7 | Second class Locomotive and | Late G. Brewer. Additional. |
| | | | | | traction | |
| McGregor, E | Fitzherbert Linton | Log-hauling | 20 15 | Two 81/2 Two 81/2 | Second class | Size of cylinders amended. Additional. |
| McGregor, John | ,, | ,, | 19 | Two 9 | , | " |
| McIlroy, O | Halcombe | General | 6 | 6 & 10 | Locomotive and traction | and the second of the second o |
| McLaren, & Co., W. A | Marton | Threshing, &c | 6 | 8 | Locomotive and | Additional. |
| | | | 36 | 101 | traction Second class | Tota I II V |
| Manawatu Timber Co Newton, John | Near Feilding Kaiwarra | Sawmill Soap-works | 22 | 12 <u>1</u> Nil | second class | Late J. H. Knapp. Size of cylinders amended. |
| New Zealand Candle Co | , | Manure-drying | 27 | 9 131, 191, & | ,, ,, | Late E. Seager. |
| New Zealand Electrical Syndicate | Wellington | Electric lighting | 100 | 28 | First Class | Size of cylinders amended. |
| New Zealand Electric Light | , | , | 100 | Ditto | , | # 1 |
| Co. New Zealand Government | Ohakune | Hauling | 8 | 98 | * | Late W. A. McLaren, Canter- |
| Public Works Department | | | | _ | * | bury. Additional. |
| Ditto | <i>"</i> | | 8 | 61 & 101 | | Late Whitall Bros., Canter- bury. Additional. |
| " | , | , | 12 | 8½ & 12§ | * | Late J. M. Dickson, Canter- |
| | , | | 9 | 7 & 11 | * | bury. Additional. Late W. A. McLaren, Canter- |
| | | . " | | | _ | bury. Additional. |
| Oldfield, Wm | Marton | General | 6 | 8 | Locomotive and traction | Additional. |
| Oroua Carrying Co | Feilding | Hauling | 6 | 4 & 7 | Ditto | " |
| | | | | | | |

^{*} Exempt under section 63 of "Inspection of Machin vy Act, 1902."

| Name of Owner. | Where Boiler used | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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 DIS | TRI | CT—continue | ed. | |
| | Wellington Palmerston N. | Show purposes Road-roller | 12 6 | Two 83 6 & 10 | Second class Locomotive and traction | Additioual. |
| Papakiri Fibre Co Piteaithly & Co | Papakiri Hayward's Wellington | Flax-mill Stone-crushing Road-wagon | 14 20 9 | 7½ & 11 11 & 14½ 4 & 7 | Second class First class Locomotive and traction | . " |
| Prouse Bros | Martin's River Weraroa Hukanui | Sawmill | 36 50 14 | 16 12 Two 9 | First class Second class | Size of cylinders amended. |
| Rangitikei County Council | Hunterville | Hauling | 6 | 4 & 7 | Locomotive and traction | Additional. |
| Scott Bros | Akatarawa Castlecliff Mungaroa Tokomaru | Sawmill | 37 30 14 12 | 13 Nil Two 8 1 7 & 11 | Second class | Additional. Late Tokomaru Flax-milling |
| Sheath, F. A Smith & Clausen | Mangamahoe | Sawmill | 17 16 | 103 Two 9 | , , , , , , , , , , , , , , , , , , , | Co. Late R. W. Brooks. Additional. Late Umutaroa Sawmilling |
| Smith. R. W | Taihape Wanganui | Log-hauling Steel-pipe making | 13 15 73 | Two 81/2 Two 81/2 | | Co., Hawke's Bay. Ditto. Late Mephan Ferguson. |
| Spiral Steel-pipe Co. of N.Z. Strand Bros. Syme, G. Taupo Totara Timber Co. | Wainuiomata Taihape Wellington | Log-hauling Sawmill Sawmill & planing- | 15 40 23 | Two 8½ 14 12 | | Additional. |
| Te Mukanui (Ltd.) Te Opakate Co. (Ltd.) | Tekomaru Kereru | ,, | 12 20 12 | 7 & 11 10 Two 81 | , , , , , , , , , , , , , , , , , , , | Late Greig and Green. Late L. Pascal. Additional. |
| Toogood & Co | Featherston Kahautara Wellington | Hoisting coal | 28 20 20 | 10 6, 7, & 8 10 | ,, , , , , , , , , , , , , , , , , , , | Size of cylinders amended. |
| ,, | ,, | Winches Hoisting | 21 46 | Two 7 Two 6, two 7, two 8, | " · · · · · · · · · · · · · · · · · · · | Additional. |
| Wanganui Meat-freezing Co. | Aramoho | Refrigerating | 24 | two 10 12 | p · · | Late Aramoho Meat-freezing |
| Wellington Biscuit Co | Wellington | Biscuits and con- fectionery | 40 32 | 12 12 | ,, ,, | Ditto. Additional. |
| Wellington City Tramways | , | Power-station | | & 17. 24½, & 37½ | First class | " |
| Wellington Hospital Wellington and Manawatu Railway Co. | " · · · · · · · · · · · · · · · · · · · | Laundry, &c Shop tools | 65 24 40 | Ditto 8 1 12 | Second class | Size of cylinders amended. |
| Wellington Meat Export Co. Wellington Woollen Co. Zajouskowski Bros. | Ngahauranga Petone Mataroa Road | Gas-making Woollen mills Log-hauling | 56 65 15 | 7 17½ & 35 Two 8½ | First class Second class | Late Philips Bros. |
| e e e | | WESTLAN | ום ס | STRICT. | | |
| Arahura Sawmilling Co Cambridge, Buteman, & | Arahura Cameron's | Sawmill Gold-dredging | 17 16 | 8 & 123 7 & 111 | First class Second class | Late Olderog & Co. Size of cylinders amended. |
| Grant Cowie & Bice | Mosquito Creek | Gold-dredging | 20 | 7 & 11 | , | Late Mosquito No. 1 Gold-dredging Co. |
| Hansen & Sons | Rimu | Sawmill | 20 | 71 & 111 | | Late Hansen & Knowles; size of cylinders amended. |
| Lake Brunner Sawmilling Co. Ditto | Moana | | 16 20 | Two 10 | First class | Late Southorn & Co., Ngahere. Size of cylinders amended. Additional. |
| Malfroy, J. C., & Co. | Hokitika | Hauling | 36 | Two 7 | Locomotive and traction First class | Late R. Stratford & Son |
| Moana Sawmilling Co. Mosquito Gold-dredging Syn- | | | 20 | 8 & 13 | Tiles class | Moana. Late Mosquito Gold-dredging |
| dicate Nelson Creek Gold dredging | Nelson Creek | Gold-dredging | 30 | 9 & 14 | ,, | Co., No. 2, Totara Flat. Size of cylinders amended. |
| Co. New Zealand Government State Coal-mines | Point Elizabeth | Pumping | 20 | 7 & 11 1 | • | Late Marsden No. 1 Gold dredging Co. |
| Ditto | Reefton | Hauling Electric dynamos | 20 40 | Two 10 10 & 16 | First class | Late H. G. Deidrick, Kokathi Late Montezuma Gold-dredg ing Co., Three-mile; size o cylinders amended. |

^{*} Exempt under section 63 of "Inspection of Machinery Act, 1902."

| Name of Owner. | Where Boiler used | Purposes for which used. | Horse-power. | Diameter of Cylinders of Engines, 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. | | | | | | | | | |
| Roberts, D. H | Lake Mahinapua | Sawmill | 20 | 8 & 123 | First class | Late Ross Daydawn Gold- dredging Co. | | | |
| Stewart & Chapman | Rimu | , | 18 | 11 | Second class | Additional. | | | |
| | Mikonui | Locomotive-work | 6 | Two 5½ | Locomotive and traction | " | | | |
| Gold dredging Co. | South Beach | 3 3 | 20 | 8 & 12\frac{3}{2} 7 & 11\frac{1}{2} | First class | Size of cylinders amended. | | | |
| Tacon, G. L | Greymouth | Gold-dredging | 25 | 8 & 123 | , | Late Golden Five-mile Gold- dredging Co. | | | |
| •• | | | 30 | 8 & 123 | | Late Ikamatua Gold-dredging Co., Blackwater. | | | |
| Tarawera Sawmilling Co | Inchbonnie | Sawmill | 22 | 131 | Second class | Late Wallace and Laurie, Christchurch. | | | |
| , | | ٠٠ سو | 25 | 13 | , | Ditto. | | | |
| Managida Duamistana Ca | Mamanida | Winding and and | 60 32 | Two 94 | First along | Additional. | | | |
| Tyneside Proprietary Co | Tyneside | Winding coal only | 32 | Two 8½, two 8, one 9, two 7½, two 4½, two 5, & one 7 | rirst class | Size of cylinders amended. | | | |
| ,, | Brunner | Pumping | 20 | One 8, one 12, two 9, two 6 | * | Late Maori King Gold-dredg- ing Co.; size of cylinders amended. | | | |
| ,, | Tyneside | Winding & pumping | | Six & 9½, two 7½, two 8, two 9 | | Additional. | | | |
| ,, | ,, | Pumping | | One 18, two 101, one 12, two 6 | | | | | |
| Wilson, G. D., & Co. | Kumara Railway | Sawmill | 37 | 14 | Second class | Additional. | | | |

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