

EXAMINATION OF MARINE ENGINEERS.

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

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

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

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

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

EXPLOSIVES.

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

ANNUAL SURVEY OF STEAMSHIPS AND AUXILIARY-POWERED VESSELS.

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

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

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

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

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

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

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

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

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

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

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