

elementary questions have been added dealing with electricity, management of oil-engines, steering-engines for ships, and hydraulic machinery as used in steamers.

These examinations for certificates of competency this year have been held at the following places : viz., Auckland,* Napier,* Wanganui,* Wellington,* Nelson,* Christchurch,* Timaru,* Dunedin,* Invercargill,* Port Chalmers, Kohu Kohu, Tauranga,* Gisborne,* Reefton, Greymouth,* Ormondville, Whakatane, and Whitianga.

The total number of applicants who applied to be examined amounted to 273 : of this number, 216 passed these examinations successfully and fifty-seven failed. Of those who failed, there were eight first-class marine engineers, one second-class marine engineer, twelve third-class marine engineers, twenty-three river engineers, three marine engine-drivers, two first-class engineers (powered vessels other than steam), three second-class engineers (powered vessels other than steam), five restricted-limits engineers (powered vessels other than steam).

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 242 written permits were issued at Wellington by this Department for the carriage of explosives on steamers.

ANNUAL SURVEYS OF STEAMSHIPS AND AUXILIARY-POWERED VESSELS.

By the end of the financial year very few steamers were overdue for survey throughout the Dominion. Like other branches of the Department's work, this important part of it is steadily increasing. Considerable additions to the steam fleets in New Zealand have been made during the year, and several fine handy steamers have been built in Auckland with hulls of wood, and fitted with machinery made locally. The Surveyors of Ships have shown commendable zeal this year in seeing that all the vessels that had to be surveyed in their various districts were inspected. No friction has occurred with the shipowners during the year. A great many necessary repairs have been effected, and all these have been supervised by the Surveyors of this Department to a finish. The periodical surveys are now carried out in a very complete manner. During the year special attention has been given to the testing of auxiliary steam-piping, and to the hulls and ballast-tanks of steamers. New books, with full instructions as to the survey of passenger-accommodation and for the survey of crew-spaces in ships, were received in 1907 from the Board of Trade of Great Britain. These are now being adopted by the Department as their guide in the future inspections of the passenger-accommodation and crew-spaces of ships.

Surprise visits were made to several steamers during the year, but very little was discovered that could be found fault with.

A great many excursion-trips have been run by passenger-steamers during the year, without any mishap or accident. All the fittings and additional equipments necessary for these trips have been supervised by the staff at all hours. Extra accommodation for passengers has been put up on several of the intercolonial boats to cope with the passenger traffic.

The total number of surveys of steamers and auxiliary-powered vessels made was 390. The fees received for these surveys amount to £1,973 15s.

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

SURVEYS OF VESSELS FOR SEAWORTHINESS.

Numerous special surveys of steamers and sailing-vessels were made during the year at the request of shipowners. The necessity for the surveys will be seen from perusal of the defects as set out in the descriptive Return No. 17, which gives full details of the nature of these defects. The Surveyors of this Department have assisted the shipowners as much as possible when urgently called upon to advise in emergency breakdown cases on ships. Amongst the most important of these surveys are the following : The direct steamer "Surrey" was detained in the latter end of February last year owing to the condition of her main boiler furnaces at Port Chalmers. New furnaces to replace the defective ones were made in Great Britain, and were fitted on board at Port Chalmers on arrival. The work was inspected throughout by one of our Dunedin Surveyors, and completed in May, 1907. The boilers were afterwards subjected to a severe hydraulic test. They stood the test well, and to the satisfaction of the Surveyors of this Department.

The steamer "Bucentaur" had the misfortune to get on a coral reef when entering Suva Harbour. The vessel, though extensively damaged, was temporarily repaired at Suva, and came on to Auckland. A survey was made on arrival, and the vessel was detained for repairs and docking. Several weeks were spent over the extensive repairs that were found necessary to be done to her hull-plating. Great credit is due to the crew of this vessel in making Auckland as they did, with the ship so badly damaged.

A fire was discovered in one of the holds of the direct steamer "Turakina" some days after leaving Auckland. The master brought the ship back to Wellington. After her arrival here it was some time before the fire was got under, and not until the vessel's holds were flooded. Extensive damage was done to the structural work in the fore holds and decking overhead. A great many of the steel

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