

1902.
NEW ZEALAND.

INSPECTION OF MACHINERY:

ANNUAL REPORT OF THE DEPARTMENT FOR 1901-2.

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

The CHIEF INSPECTOR of MACHINERY to the Hon. the MINISTER of MARINE.

SIR,—

Inspection of Machinery Department, Wellington, 20th May, 1902.

I have the honour to submit herewith the annual report on the operations of the Inspection of Machinery Department for the twelve months which ended on the 31st March, 1902.

I have, &c.,

ROBERT DUNCAN,

The Hon. W. Hall-Jones, Minister of Marine.

Chief Inspector of Machinery.

REPORT.

LAND MACHINERY.

This includes the examination of all land steam-boilers and the machinery driven by steam by these boilers; also the machinery driven by all power other than steam, excepting the machinery driven by hand-power. All parts of the colony have been visited by the Inspectors of the Department, and a thorough inspection made of all machinery there.

Boilers.

During the year 4,379 steam-boilers were examined, the boilers being empty and all parts made accessible for the inspection; and in numerous cases a second visit was made when under steam, to examine all parts under steam conditions. The work connected with this branch of the Department is unpleasant, but one of the most important. Numbers of the boilers in the colony are getting old, and have to be reduced in pressure and very carefully examined. No accident to life or limb has been reported in connection with boilers during this year. It should be apparent to the general public the desirableness and usefulness of having practical examinations—for the safety of themselves, of employers and employees, and of property—by experienced men from time to time.

The tendency of late years has been to increase the pressure in all new boilers where old ones have been discarded, and the danger that may be incurred through explosion has therefore increased owing to the higher pressure. This applies more especially to water-tube and locomotive type of boilers, where the water in the boilers and over the heating-surfaces is limited, and where, if anything was going wrong with feeding arrangements, overheating would of necessity follow, with plate-bulging and explosion. Pressures in these boilers have increased quite 25 per cent. of late years.

The introduction of qualified engine-drivers to take charge of steam plants has given satisfaction all round, and should tend to minimise the risk of explosion, and also help to reduce the expenditure in upkeep and attention. It is as much to the advantage of the employer in a small way of business as it is to the company or firm owning large plants to have his engine-drivers thoroughly competent and able to cope with the efficient maintenance of his boilers and machinery, the value of which can only be kept up by such efficient maintenance. Yet, it seems, the view is entertained in some quarters that it is better to have those in charge of machinery who cannot but be (to those qualified to judge) less than efficient, in preference to those who, other things being equal, have at least higher claims to efficiency. The apparent cause of this seems to lie in a false economy, founded on the assumption that the less training a man undergoes the cheaper he will be, a fallacy that obviously need not be discussed.