

The INSPECTOR of MACHINERY, OTAGO DISTRICT, to the CHIEF INSPECTOR of MACHINERY.

SIR,—

Office of Inspector of Machinery, Dunedin, 29th April, 1887.

I have the honour to forward unto you the annual report of inspection of boilers and machinery in the Otago District during the financial year ended the 31st March, 1887, contained in the accompanying tables.

In forwarding this report unto you I am sorry to state that the trade depression has been very severe down in this district during the past year; consequently a great part of the machinery has been working only a part of the time, the greatest part of the saw-mills working what is termed single-handed. Withal a considerable number of portable engines have been imported, as per table.

The locally-made boilers have been required principally for boiling-down, and also for dairy factories. This is the only branch of business which has made any progress during the year, the number of dairy factories in this district now amounting to thirteen.

A new industry has been added here in the shape of rolling-mills, and the conversion of iron into steel, which will be available for castings up to two tons.

Defects found in Boilers: There has been nothing unusual; wasting, either external or internal, always going on less or more in a number of boilers.

The accident reported to the Cornish boiler, although of a very serious nature, was fortunately unattended with injury to any one employed. The other one was not of such a serious nature, the only damage done being to put out the fire.

Notices to repair Boilers: In some cases of course the tear-and-wear has been going on for a number of years, there being only three cases where repairs have been rendered necessary through fractured or sprung plates.

Notices to remove Dangerous Parts of Machinery: There were only two cases, and these were circular saws, one being cracked for a distance of 10in., the other 14in. from the centre.

Notices to fence Dangerous Parts of Machinery: There were six cases.

Return of Accidents to Life and Limb: I am very much pleased to be able to report that I have received no notice of any accident to life or limb throughout this district during the past year. This is the first time since the Inspection of Machinery Act came into force that I have been able to forward a table clear of accidents.

The total number of boiler inspections made during the year amounted to 495; hydraulic lifts, 60; elevators, 6; water flour-mills, 4: making a total of 565 inspections. Of that number, Mr. Blackwood inspected—boilers, 126; hydraulic lifts, 52; elevators, 6; water-wheels, 4: total, 188.

I may state that, in the matter of fitting catches on these lifts, there is a considerable difficulty in the way in finding a catch that will meet all requirements. There is only one so far that is reliable, all the rest tried having proved failures; but this one, unfortunately, blocks up two sides on the floors, which means stopping the work; but possibly this may be overcome in a short time.

I have, &c.,

The Chief Inspector of Machinery, Wellington.

ALEXANDER CRAWFORD.

RETURN of NOTICES given to REPAIR BOILERS in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1887.

Date of Notice.	Description of Boiler.	Nature of Repairs ordered.
1886.		
April 27 ...	Steam digester ...	Safety-valve to be fitted, and also steam-pressure gauge; also two 3in. x 3in. x $\frac{3}{8}$ in. angle-irons rivetted on each end, with two $1\frac{1}{4}$ in. stays attached with T ends.
July 6 ...	Cornish ...	Bolted patch on shell where boiler has been in contact with brickwork; size of patch, 4ft. x 18in.
July 12 ...	Cornish ...	Three circular seams in tube to be re-rivetted and caulked half-way round; ends of Galloway tubes caulked; and half-circle of angle-iron 3in. x 3in. x $\frac{3}{8}$ in. put round first crown-plate, and properly secured thereto.
July 20 ...	Longitudinal tubular	Laminated plate over firepiece cut out about 18in. x 12in., and patch rivetted over.
July 20 ...	Cornish ...	Patch to be rivetted in furnace as directed.
July 20 ...	Cornish ...	New front end-plate to be renewed, extending down to cross-seam.
Aug. 9 ...	Longitudinal tubular	Mud-hole door of 7in. x 5 in. or thereby to be put in front end of boiler; also new water-gauge cocks.
Aug. 9 ...	Steam digester ...	Pressure-gauge to be fitted on.
Sept. 7 ...	Vertical ...	Two mud-hole doors to be patched over about 18in. x 12in.
Sept. 29 ...	Portable ...	Cylinder to be rejoined, and bolts made tight in crank-shaft bracket.
Nov. 15 ...	Locomotive ...	New crown to be put in fire-box.
1887.		
Feb. 26 ...	Steam digester ...	Steam-pressure gauge to be fitted on.
Mar. 24 ...	Portable ...	Steam-pressure gauge to be got.