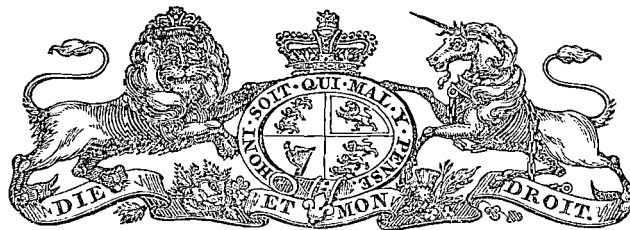


(No. 37.)



1890.

PARLIAMENT OF TASMANIA.

CHIEF INSPECTOR OF MACHINERY :

REPORT FOR 1889.

Presented to both Houses of Parliament by His Excellency's Command.



Office of Chief Inspector of Machinery, Hobart, 30th June, 1890.

SIR,

I HAVE the honor to forward you the following Report for the year ending 31st December, 1889.

Working of the Act.

The Machinery Act for 1884 being repealed, the present Act came into force October, 1889. I am pleased to report it is very favourably received by a large number of Machinery owners, especially those interested in mining machinery.

Certificates.

The new Act provides for the granting of certificates of competency and service to the various grades of Engineers and Engine-drivers. These clauses have been hailed with satisfaction. I have received no less than sixty applications since the passing of the new Act. These will be dealt with as soon as the necessary Regulations (now under consideration) have been formulated and approved.

Construction of Steam Boilers.

I again beg to call your attention to my remarks in last report—viz., the advisability of making it compulsory that makers and vendors of steam boilers (now being or hereafter constructed) shall have a plate or plates of sufficient size affixed to each boiler, having stamped thereon the tensile strength of the plates, the name of the maker, the place and date of construction. This will ensure buyers from many risks, and save Inspectors unnecessary trouble.

Inspection of Mining Machinery.

Since the passing of the new Act, directors, managers, and others connected with mining companies have expressed themselves much in favour of the clauses relative to mining machinery. Several visits and inspections have been made, which met with a pleasing reception at the hands of the managers and engineers. Other mining localities have made repeated requests for machinery inspection, but at the present time cannot well be complied with.

Examination of Engineers under the Merchants Ships Officers Examination Act, 1878.

Two candidates have passed creditably, one first class for competency, and one for competency second class.

Accidents to Persons.

The total number of accidents reported for the year 1889 amount to thirteen; one fatal, seven serious, and five trivial. I have observed reports of machinery accidents in the public press, but the pressure of other duties prevented investigation. Causes of those which have come under notice are principally through negligence arising from ignorance.

Boiler Accidents.

There has been during the year 1889 five steam boiler accidents; four of these were small marine steam boilers, three of them caused solely through ignorance and neglect upon the part of the men in charge. In many cases this class of machinery is owned and controlled by persons having but little knowledge of, and taking less interest in, efficiency and safety. They are content with "let it go for this trip policy," and are averse to the trouble of inspection and thorough overhauling and refitting where immediate use is not apparent and commercially valuable to them. It is to be hoped in the near future that lawful authority will be properly determined, and the responsibility of the charge of valuable steam machinery and lives placed in the hands of competent and practical men.

Overloaded Safety-valves

Several cases have been detected during the past year.

Boiler explosions, when not the result of congenital weakness or of neglected wear, are mostly caused by the want of water in the boilers, or by the tampering with safety-valves. Two flagrant cases have been prominently brought under my notice. First, a steamer racing with another on a public holiday excursion trip, both vessels carrying their full (smooth-water) complement of passengers. According to verbal report, one of these steamers carried a steam boiler pressure (during the period of racing) varying from 135 to 137 pounds per square inch. The lawfully authorised maximum working pressure is 100 pounds per square inch. Second case, a stationary steam boiler, the supposed safety-valve of which was overloaded to such an extent that a violent explosion would have been inevitable before there could have been any possibility of this safety-valve easing or floating sufficiently to give vent to the pent-up steam. In this particular instance I received definite instructions from the Hon. the Chief Secretary to report the full particulars in detail. I much regret to state I was unable to do so, as in this and the above-stated case I was met with so much equivocation, which amounted to obfuscation, finally pleading that a lean compromise in these matters is better than a just judgment. In my opinion this calls for a regulation under Clause 47, Part 3, Machinery Act, 1889.

Fees received.

All inland fees received by the Department, viz., £164, have been paid into the Treasury.

Fees unpaid.

Fees amounting to £50 remain uncollected. Under the present *personnel* this collection of fees is tardy and litigious, especially when overtasked by a great number of pressing and important duties requiring immediate attention, and in which responsibility cannot well be avoided or divided.

Synopsis of other Duties performed by the Chief Inspector in obedience to instructions received from the Hon. the Chief Secretary.

Engineer and Iron Shipwright Surveyor to the Hobart and Mersey Marine Boards. Supervision of slipping and repairs, &c. to the dredge *Agnew*. Investigations and reports upon the most suitable class of machinery for electrical installation, Defence Department. Inspections and reports upon alterations and additions, costs, &c. of elevating gun gear, Defence Department. Inspections and reports relative to the introduction of steam-power for laundry, warming, and ventilation, including other purposes of utility, New Norfolk Asylum. Inspections and reports upon stone-breakers and other machinery attached thereto, Public Works. Various duties, Government Printing Office. Inspection of boiler and machinery, Powder Hulk. Inspection and reports upon mechanical alarm appliances, Boys' Reformatory. Furnishing report upon the adaptability of a steam generator, Charitable Institutions, New Town. Investigation and report upon the fatal machinery accident at Sheffield, October 21st, 1889.

Remarks.

As the use of steam and other machinery throughout the Colony is yearly upon the increase, and as there yet remains many localities and establishments where steam power is daily working uninspected, I most respectfully solicit your re-perusal of the Reports for the years 1887 and 1888.

I have the honor to be,
Sir,

Your obedient Servant,

JOHN CLARK,
Chief Government Inspector of Machinery.

The Hon. the Chief Secretary, Tasmania.

RETURN of Inspections made during the Year ending 31st December, 1889.

<i>Description of the Inspections, &c.</i>	<i>Office.</i>	<i>No.</i>	<i>Total.</i>
Machinery having boilers connected therewith, stationary	Hobart	18	74
	Launceston	56	
" " " " portable	Hobart	19	149
	Launceston	130	
Boilers not having machinery connected therewith	Hobart	3	11
	Launceston	8	
Machinery worked by water-power	Hobart	3	6
	Launceston	3	
Steam boilers found defective, original construction	Hobart	9	13
	Launceston	4	
Steam boilers condemned	Hobart	1	3
	Launceston	2	
Steam boilers injured through ignorance or neglect	Hobart	3	4
	Launceston	1	
Proprietors and others instructed to fence off dangerous places	Hobart	3	11
	Launceston	8	
Steam-gauges tested and found defective	Hobart	9	15
	Launceston	6	
Machinery accidents to persons arising from ignorance and neglect	Hobart	6	13
	Launceston	7	
Steam marine machinery inspections	Hobart	160	257
	Launceston	97	
Iron hulls of steam vessels	Hobart	10	17
	Launceston	7	
Steam vessels inspected	Hobart	26	42
	Launceston	16	
Declarations given to owners of steam vessels	Hobart	50	50