

# REPORT ON MACHINERY.

Port of Glasgow

No. 9314

No. in Survey held at Glasgow

Date, first Survey 12<sup>th</sup> June 1889 Last Survey 10<sup>th</sup> July 1889

Reg. Book.

874 on the Donkey Boiler for S.S. "Cloncurry"

(Number of Visits 6)

Tons 2579

Master Season Built at Sunderland By whom built Dofford & Sons

When built 1884

Engines made at Sunderland By whom made Dofford & Sons

when made 1884

Boilers made at do By whom made do

when made 1884

Registered Horse Power 260

Owners McIlwraith

Port belonging to London

## ENGINES, &c.—

Description of Engines

Length of Stroke \_\_\_\_\_ No. of Rev. per minute \_\_\_\_\_ Point of Cut off, High Pressure \_\_\_\_\_ Low Pressure \_\_\_\_\_  
Diam. of Tunnel shaft \_\_\_\_\_ Diam. of Crank shaft journals \_\_\_\_\_ Diam. of Crank pin \_\_\_\_\_ size of Crank webs \_\_\_\_\_  
Pitch of screw \_\_\_\_\_ No. of blades \_\_\_\_\_ state whether moveable \_\_\_\_\_ total surface \_\_\_\_\_  
No. of Feed pumps \_\_\_\_\_ diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
No. of Bilge pumps \_\_\_\_\_ diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
Where do they pump from \_\_\_\_\_  
No. of Donkey Engines \_\_\_\_\_ Size of Pumps \_\_\_\_\_ Where do they pump from \_\_\_\_\_

Are all the bilge suction pipes fitted with roses \_\_\_\_\_ Are the roses always accessible \_\_\_\_\_ Are the sluices on Engine room bulkheads always accessible \_\_\_\_\_  
No. of bilge injections \_\_\_\_\_ and sizes \_\_\_\_\_ Are they connected to condenser, or to circulating pump \_\_\_\_\_  
How are the pumps worked \_\_\_\_\_  
Are all connections with the sea direct on the skin of the ship \_\_\_\_\_ Are they Valves or Cocks \_\_\_\_\_  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the discharge pipes above or below the deep water line \_\_\_\_\_  
Are they each fitted with a discharge valve always accessible on the plating of the vessel \_\_\_\_\_ Are the blow off cocks fitted with a spigot and brass covering plate \_\_\_\_\_  
What pipes are carried through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_  
Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times \_\_\_\_\_  
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges \_\_\_\_\_  
When were stern tube, propeller, screw shaft, and all connections examined in dry dock \_\_\_\_\_  
Is the screw shaft tunnel watertight \_\_\_\_\_ and fitted with a sluice door \_\_\_\_\_ worked from \_\_\_\_\_

## BOILERS, &c.—

Number of Boilers one Description Cylind Multit. Whether Steel or Iron Steel  
Working Pressure 90 lbs Tested by hydraulic pressure to 180 lbs Date of test 10<sup>th</sup> July 1889  
Description of superheating apparatus or steam chest none  
Can each boiler be worked separately ☒ Can the superheater be shut off and the boiler worked separately ☒  
No. of square feet of fire grate surface in each boiler \_\_\_\_\_ Description of safety valves Direct spring No. to each boiler 2  
Area of each valve 8.3 Are they fitted with easing gear yes No. of safety valves to superheater ☒ area of each valve ☒  
Are they fitted with easing gear ☒ Smallest distance between boilers and bunkers or woodwork ☒ Diameter of boilers 8' 6"  
Length of boilers 8' 0" description of riveting of shell long. seams treb rivet circum. seams doub. rivet Thickness of shell plates 5/8"  
Diameter of rivet holes 1 1/16" whether punched or drilled drilled pitch of rivets 3 1/4" Lap of plating 1 1/4"  
Per centage of strength of longitudinal joint 77 1/2 working pressure of shell by rules 107 lbs size of manholes in shell 12" x 16"  
Size of compensating rings 8" x 5 1/8" No. of Furnaces in each boiler 2  
Outside diameter 2' 7" length, top 5' 9" bottom 4' 6" thickness of plates 1/2" description of joint doub butt str if rings are fitted on bottom  
Greatest length between rings 5' 9" working pressure of furnace by the rules 126 lbs combustion chamber plating, thickness, sides 1/16" back 1/16" top 1/16"  
Pitch of stays to ditto, sides 1 1/2 x 1 1/2 back 1 1/2 x 1 1/2 top 1 1/2 x 1 1/2 If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 96 lbs diameter of stays at smallest part 1" working pressure of ditto by rules 114 lbs plates in steam space, thickness 5/8"  
Pitch of stays to ditto 14" x 14" how stays are secured Nuts rivetted working pressure by rules 136 lbs diameter of stays at smallest part 1 7/8" working pressure by rules 120 Front plates at bottom, thickness 1/16" Back plates, thickness 5/8"  
Greatest pitch of stays 11 1/2" working pressure by rules 105 lbs Diameter of tubes 3 1/4" pitch of tubes 4' 4" thickness of tube plates, front 1/16" back 1/16" how stayed tubes pitch of stays 8' 12" width of water spaces 10"  
Diameter of Superheater or Steam chest none length — thickness of plates — description of longitudinal joint — diam. of rivet holes —  
Pitch of rivets — working pressure of shell by rules — diameter of flue — thickness of plates — If stiffened with rings —  
Distance between rings — working pressure by rules — end plates of superheater, or steam chest; thickness — how stayed —  
Superheater or steam chest; how connected to boiler —



9314 gles

DONKEY BOILER— Description

Made at \_\_\_\_\_ by whom made \_\_\_\_\_ when made \_\_\_\_\_ where fixed \_\_\_\_\_  
Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ No. of Certificate \_\_\_\_\_ fire grate area \_\_\_\_\_ description of safety  
valves \_\_\_\_\_ No. of safety valves \_\_\_\_\_ area of each \_\_\_\_\_ if fitted with easing gear \_\_\_\_\_ if steam from main boilers can  
enter the donkey boiler \_\_\_\_\_ diameter of donkey boiler \_\_\_\_\_ length \_\_\_\_\_ description of riveting \_\_\_\_\_  
Thickness of shell plates \_\_\_\_\_ diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ lap of plating \_\_\_\_\_  
per centage of strength of joint \_\_\_\_\_ thickness of crown plates \_\_\_\_\_ stayed by \_\_\_\_\_  
Diameter of furnace, top \_\_\_\_\_ bottom \_\_\_\_\_ length of furnace \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of joint \_\_\_\_\_  
Thickness of furnace crown plates \_\_\_\_\_ stayed by \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_  
Working pressure of furnace by rules \_\_\_\_\_ diameter of uptake \_\_\_\_\_ thickness of plates \_\_\_\_\_ thickness of water tubes \_\_\_\_\_

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The material used in the construction of this Boiler is of good quality, the boiler has been made under special survey & according to the rules of this Society, it has undergone a satisfactory hydraulic test in my presence, A Certificate of the same has been duly signed & sent to the maker

Charles Cooper  
Engineer Surveyor  
Glasgow

To be fitted on board at London  
James Mollison  
3/8/89

The amount of Entry Fee . £ : : received by me, (M)  
Special . . . . . £ : :  
Donkey Boiler Fee . . . . . £ 2 : 2 :  
Certificate (if required) . . . . . £ : : 2/8/1889  
To be sent as per margin.

(Travelling Expenses, if any, £ )

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