

REPORT ON MACHINERY.

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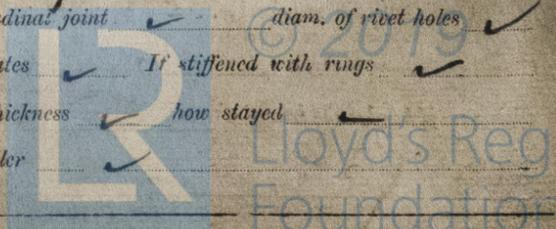
No. **5317** Port of **Dundee** Received at London Office **MON. 2 DEC 1889**
 No. in Survey held at **Dundee** Date, first Survey **2nd August** Last Survey **26th Nov. 1889**
 Reg. No. **387** on the **Iron Screw Steamer "Martin"** (Number of Visits **12**) Tons **995**
 Master **[illegible]** Built at **Newcastle** By whom built **L Mitchell & Co.** When built **1875**
 Engine made at **Newcastle** By whom made **Thompson & Co. Nee.** when made **1875**
 Boiler made at **Dundee** By whom made **Gourlay Bros & Co.** when made **1889**
 Registered Horse Power **180** Owners **General Steam Navigation Co. Port belonging to London**

ENGINES, &c.—

Description of Engines
 Diameter of Cylinders Length of Stroke No. of Rev. per minute Point of Cut off, High Pressure Low Pressure
 Diameter of screw shaft Diam. of Tunnel shaft Diam. of Crank shaft journals Diam. of Crank pin size of Crank webs
 Diameter of screw Pitch of screw No. of blades state whether moveable total surface
 No. of Feed diameter of ditto Stroke Can one be overhauled while the other is at work
 No. of Blow diameter of ditto Stroke Can one be overhauled while the other is at work
 Where do they pump from
 No. of Don Size of Pumps Where do they pump from
 Are all the valves fitted with roses Are the roses always accessible Are the sluices on Engine room bulkheads always accessible
 No. of bits and sizes Are they connected to condenser, or to circulating pump
 How are they protected
 Are all valves on the sea direct on the skin of the ship Are they Valves or Cocks
 Are they fitted with a 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 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 through the bunkers How are they protected
 Are all valves, and pumps in connection with the machinery accessible at all times
 Are the valves arranged so as to prevent an unintentional connection between the sea and the bilges
 When propeller, screw shaft, and all connections examined in dry dock
 Is the screw shaft and fitted with a sluice door worked from

BOILER

Number **One** Description **Circular tubular** Whether Steel or Iron **Steel, better of material (O)**
 Worked by **hydraulic pressure to 320 lb** Tested by **hydraulic pressure to 320 lb** Date of test **26/11/89**
 Description of firing apparatus or steam chest **None**
 Can the superheater be shut off and the boiler worked separately
 No. of fire grate surface in each boiler **70 sqft.** Description of safety valves No. to each boiler
 Area of fire grate surface Are they fitted with casing gear No. of safety valves to superheater area of each valve
 Are they fitted with casing gear Smallest distance between boilers and bunkers or woodwork Diameter of boilers **14' 6"**
 Length of boiler **6'** description of riveting of shell long. seams **Double straps** circum. seams **Treble riv. lap** Thickness of shell plates **1 1/4"**
 Diameter of boiler **15 1/16"** whether punched or drilled **Drilled** pitch of rivets **8 3/4"** Lap of plating **20 1/8" straps**
 Percentage of longitudinal joint **85% x 92%** working pressure of shell by rules **158** size of manholes in shell **16" x 13"**
 Size of manhole rings **4" x 4" x 3/4"** No. of Furnaces in each boiler **Four**
 Outside diameter of boiler **15' 0"** length, top **6' 10 1/2"** bottom **6' 10 1/2"** thickness of plates **7/16 + 3/16** description of joint **Purvis's patent** if rings are fitted **Yes**
 Clearance between rings **9"** working pressure of furnace by the rules **159 1/2** combustion chamber plating, thickness, sides **9/16"** back **9/16"** top **19/16"**
 Pitch of boiler **7 3/4" x 7 3/4"** back **7 3/4" x 7 3/4"** top **7 3/4" x 7 3/4"** If stays are fitted with nuts or riveted heads **Nuts** working pressure of plating by rules
 Diameter of stays at smallest part **1 1/2" x 1 3/8"** working pressure of ditto by rules **198 1/4** end plates in steam space, thickness **1 1/16"**
 Pitch of boiler **15 1/2" x 16"** how stays are secured **by double nuts** working pressure by rules **158 1/4** diameter of stays at smallest part **2 3/8"** working pressure by rules **156 1/4** Front plates at bottom, thickness **11/16"** Back plates, thickness **5/8"**
 Great diameter of tubes **3 1/4"** pitch of tubes **4 1/2" x 4 1/2"** thickness of tube **11/16"** back **11/16"** how stayed **stay tubes** pitch of stays **9" x 9"** width of water spaces **7"**
 Diameter of superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes
 Pitch of boiler 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



Form No. 1 of the Ship (State of Report is also sent on the 11th of the Ship)

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,
Samuel Probert & Co. Manufacturer.

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

This boiler is made of steel which according to the test certificate has been tested at the steel works by one of the Society's surveyors. The material and workmanship are good.

The amount of Entry Fee . . . £ : : received by me,
 Special . . . £ 5 : 5 :
 Donkey Boiler Fee . . . £ : :
 Certificate (if required) . . . £ : : 28/11 1884
 To be sent as per margin.
 (Travelling Expenses, if any, £ . . .)

H. C. Newdell
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUES. 28 APR 1891 FRI. 13 FEB 1891

Not for issue



Lloyd's Register Foundation