

REPORT ON MACHINERY.

11303

MON. 22 FEB 1892

No. 11302 Port of Glasgow Received at London Office
 No. in Survey held at Glasgow Date, first Survey 10th Dec^r 1891 Last Survey 12th Feb^r 1892
 Reg. Book. Boiler No 525 (Number of Visits 9)
 on the Boiler No 525 Tons ^{Gross} _{Net}
 Master Built at By whom built When built
 Engines made at By whom made when made
 Boilers made at Glasgow By whom made Ross & Puncan when made 1892
 Registered Horse Power Owners Shipment to Cadiz Port belonging to

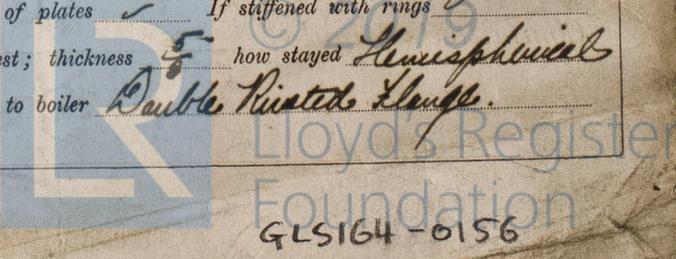
ENGINES, &c.—

Description of Engines No. of Cylinders
 Diam. of Cylinders Length of Stroke 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 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

BOILER, &c.—

No. of Boilers One Description Cyl^r Multitubular Material Steel - Stay Steel better (for record) 8
 Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 12th Feb^r 1892
 Description of ~~superheating apparatus~~ or steam chest Cylindrical Dome, Hemispherical End.
 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 27.5 Description of safety valves Direct Spring No. to each boiler Two
 Area of each valve 4.9" 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 9.0"
 Length of boilers 9.0" description of riveting of shell long. seams Lap, Double Riv^d circum. seams Lap Single Riv^d thickness of shell plates 3/16"
 Diameter of rivet holes 5/16" whether punched or drilled Drilled pitch of rivets 3 3/8" Lap of plating 6 1/2"
 Per centage of strength of longitudinal joint 73.8 working pressure of shell by rules 102 lbs size of manholes in shell 15" x 11 1/2"
 Size of compensating rings 6" x 7/16" No. of Furnaces in each boiler Two Description of Furnaces Plain
 Outside diameter 34" length 6.5" thickness of plates 5/16" description of joint Welded if rings are fitted L 3 x 3 x 2
 Greatest length between rings ✓ working pressure of furnace by the rules 102 lbs combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
 Pitch of stays to ditto, sides 1/4" x 1/4" back 1/4" x 1/4" top 1/4" x 1/4" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 102 lbs
 Diameter of stays at smallest part 5/16" + 1/16" working pressure of ditto by rules 104 lbs end plates in steam space, thickness 5"
 Pitch of stays to ditto 13" x 13" how stays are secured W^d Nuts & Washers working pressure by rules 109 lbs diameter of stays at smallest part 1 1/2"
 working pressure by rules 106 lbs Front plates at bottom, thickness 7/16" Back plates, thickness 5"
 Greatest pitch of stays 17" x 8" working pressure by rules Double Riv^d Plates diameter of tubes 3 1/2" pitch of tubes 4 3/8" x 4 1/2" thickness of tube plates, front 7/16" back 5/16" how stayed Subs + 1/2" stay pitch of stays 13 1/2" x 8 1/2" width of water spaces 6" to 10"
 Diameter of ~~Superheater~~ or Steam chest 26" length 26" thickness of plates 3/8" description of longitudinal joint Weld diam. of rivet holes
 Pitch of rivets ✓ working pressure of shell by rules 114 lbs 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 5" how stayed Hemispherical
 Superheater on steam chest; how connected to boiler Double Riv^d Flange

Part is also sent on the Hull of the Ship
 (State of
 1142—L.R.P.H.—2,000—Form No. 8—Copy



11302 ps

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,
Ross & Duncan Manufacturer.

J. Buchanan

General Remarks (State quality of workmanship, opinions as to class, &c. *A steel boiler of the dimensions given on the other side, has been built under Special Survey. The materials and workmanship throughout are good, and the boiler has been subjected to an hydraulic test, and satisfactorily proved, as required by the Rules of this Society. This boiler has been shipped from Glasgow to Cadiz.*

It is submitted that Mr Beveridge be requested to state for what purpose this boiler is intended. C.E.S. 22. 2. 92.

It is submitted that no further action be taken in this matter. C.E.S. 25. 2. 92.

Certificate (if required) to be sent to _____

The amount of Entry Fee .. £ : : received by me,

Special £ 3 : 3 -

Donkey Boiler Fee £ : :

19/2/1892

R. J. B. Beveridge
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Glasgow

(Travelling Expenses, if any, £ _____)

Committee's Minute

Not for form

U= to lps 23/2/92

