

REPORT ON MACHINERY.

No. 21645

THUR. 7 APR 1904

Port of Glasgow

Received at London Office

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No. in Survey held at Glasgow Date, first Survey 20th May 03 Last Survey 24/3 1904
 Reg. Book. J. J. "Ashmount" (Number of Visits 22) Tons { Gross 2109 Net 2035
 42 Sup. on the Master James McDowell built at Port Glasgow By whom built A. Rodgers & Co. When built 1903-1904
 Engines made at Glasgow By whom made A. Rodgers & Co. when made 1903
 Boilers made at Glasgow By whom made Ross & Duncan when made 1903
 Registered Horse Power _____ Owners Hope & Sloan Port belonging to Glasgow
 Nom. Horse Power as per Section 28 275 Is Refrigerating Machinery fitted no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 24-40-65 Length of Stroke 42 Revs. per minute 100 Dia. of Screw shaft 13 1/2 Material of steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
 in the propeller boss Yes If the liner is in more than one length are the joints burned no If the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive _____ If two
 liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 4 1/2
 Dia. of Tunnel shaft 11 3/4 as per rule 11 3/4 Dia. of Crank shaft journals 12 as per rule 12 Dia. of Crank pin 12 1/2 Size of Crank webs 8 Dia. of thrust shaft under
 collars 12 1/8 Dia. of screw 16-0 Pitch of screw 16-0 No. of blades 4 State whether moveable no Total surface 76
 No. of Feed pumps 2 Diameter of ditto 3 1/4 Stroke 21 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 3 1/4 Stroke 21 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 6 x 4 x 6 D. 8 x 8 x 10 D No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3-3 1/2 Tunnel 1-2 1/2 In Holds, &c. 2-3 in each hold
 No. of bilge injections 1 sizes 6 Connected to condenser, or to circulating pump no Is a separate donkey suction fitted in Engine room & size Yes 3 1/2
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible _____
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the discharge pipes above or below the deep water line Above
 Are they each fitted with a discharge valve always accessible on the plating of the vessel Yes Are the blow off cocks fitted with a spigot and brass covering plate Yes
 What pipes are carried through the bunkers none How are they protected _____
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launch the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door Yes worked from Top platform Is forced draft fitted no

BOILERS, &c.— (Letter for record (S)) Total Heating Surface of Boilers 4141 Is forced draft fitted no
 No. and Description of Boilers 2 Single-ended Mult. Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs
 Dates of test 21+26 Can each boiler be worked separately yes Area of fire grate in each boiler 61.84 No. and Description of safety valves to
 each boiler 3 Lockburn Area of each valve 7.06 Pressure to which they are adjusted 165 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork abt. 18 Mean dia. of boilers 15.3 Length 10.6 Material of shell plates steel
 Thickness 1 5/32 Range of tensile strength 27-32 Are they welded or flanged no Descrip. of riveting: cir. seams L.D.R. long. seams D.B.I.R.
 Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 Lap of plates or width of butt straps 1.5 1/2
 Per centages of strength of longitudinal joint rivets 78.4 Working pressure of shell by rules 141 lbs Size of manhole in shell 16 x 12
 plate 85.3 Size of compensating ring 4 x 1 5/32 No. and Description of Furnaces in each boiler 3 Doughtons Material steel Outside diameter 4-1 1/4
 Length of plain part 6-7 Thickness of plates crown 14 Description of longitudinal joint weld. No. of strengthening rings ✓
 Working pressure of furnace by the rules 166 Combustion chamber plates: Material steel Thickness: Sides 19 Back 19 Top 19 Bottom 5
 Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 8 1/2 x 8 1/2 Top 8 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 164 lbs
 Material of stays steel Diameter at smallest part 1.48 Area supported by each stay 44.3 Working pressure by rules 160 lbs End plates in steam space:
 Material steel Thickness 1 1/8 Pitch of stays 1 5/2 x 1 8/4 How are stays secured Washers Working pressure by rules 164 lbs Material of stays steel
 Diameter at smallest part 6.48 Area supported by each stay 36.3 Working pressure by rules 148 lbs Material of Front plates at bottom steel
 Thickness 3/4 Material of Lower back plate steel Thickness 1 1/16 Greatest pitch of stays 1 1/2 x 1 1/2 Working pressure of plate by rules 220 lbs
 Diameter of tubes 3 1/2 Pitch of tubes 4 5/8 x 4 3/4 Material of tube plates steel Thickness: Front 1 3/4 Back 3/4 Mean pitch of stays 10.9
 Pitch across wide water spaces 14 Working pressures by rules 166+169 lbs Girders to Chamber tops: Material iron Depth and
 thickness of girder at centre 4 x 2 Length as per rule 29.6 Distance apart 8 3/4 Number and pitch of Stays in each 2-8 1/2
 Working pressure by rules 161 lbs Superheater or Steam chest; how connected to boiler ✓ Can the superheater be shut off and the boiler worked
 separately _____ Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet
 holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____
 If stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____
 Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____

W 770-0158



DONKEY BOILER— No. 1 Description Multitubular
 Made at Glasgow By whom made Gwing & Lawson When made — Where fixed Main Deck
 Working pressure 80 tested by hydraulic pressure to 160 No. of Certificate 6027 Fire grate area 25 # Description of safety valves Spring loaded
 No. of safety valves 2 Area of each 4.9 Pressure to which they are adjusted 83 1/2 If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler No Dia. of donkey boiler 8' 3" Length 8' 3" Material of shell plates steel Thickness 1 5/32" Range of tensile strength 27 ton Descrip. of riveting long. seams T. R. Lap Dia. of rivet holes 1 3/16" Whether punched or drilled drilled Pitch of rivets 3 1/2"
 Lap of plating 6" Per centage of strength of joint 76.7 Rivets 20 Thickness of shell crown plates — Radius of do. — No. of Stays to do. —
 Dia. of stays. — Diameter of furnace Top 30 1/2" Bottom — Length of furnace 87" Thickness of furnace plates 3 9/64" Description of joint weld Thickness of furnace crown plates — Stayed by — Working pressure of shell by rules 83 1/2
 Working pressure of furnace by rules 83 1/2 Diameter of uptake — Thickness of uptake plates — Thickness of water tubes —

SPARE GEAR. State the articles supplied:— Propeller, 2 top end bolts, 2 bottom end bolts, 2 main bearing, set of coupling bolts, spare feed & lidge valves, assorted bolts, etc.

The foregoing is a correct description,
J. A. Rodgers & Co Manufacturer.
J. Hall-Brown.

Dates { During progress of work in shops - - } 1903: May 20, 25. June 11, 25. July 2. Aug 5, 13, 17, 24. Sept: 1, 9, 10, 23.
 { During erection on board vessel - - } Oct: 26. Nov: 6, 10, 13, 16, 19. Dec: 16, 29. 1904: Jan: 24.
 Total No. of s 22. Is the approved plan of main boiler forwarded herewith Yes
 " " " donkey " " " Yes

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

The engines & boilers of this vessel have been constructed under Special Survey & are of good materials & workmanship. They have been securely fitted on board & satisfactorily tried under steam.

In our opinion this vessel is eligible for notation L.M.C. 3.04 in the Register Book.

Donkey Boiler listed 14/1/02, standing in shop since then.

It is submitted that this vessel is eligible for THE RECORD. ∴ L.M.C. 3.04.

J.S.
7.4.04
7.4.04

The amount of Entry Fee... £ 2 : : When applied for,
 Special £ 33 : 16 : } 21.12.1903
 Donkey Boiler Fee £ : : }
 Travelling Expenses (if any) £ : : } 22.12.1903

H Gardner-Smith, A. J. Barrett
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute Glasgow - 6 APR 1904

Assigned L.M.C. 3.04

MACHINERY CERTIFICATE
 WRITTEN 8.4.04



FLAT (if B GAR) Stat thick way B
 Write "Sheer-Stroke" opposite its corresponding letter.
 Beer Len an thick
 POOP BRID FORE
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 The
 Build

Certificate (if required) to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)