

REPORT ON MACHINERY.

Port of Glasgow

No. in Survey held at Glasgow

Date, first Survey 23 Nov 1900 Last Survey 8 Oct 1901

Reg. Book.

1257 on the S. S. Corp Castle

(Number of Visits 48)

Master J. Rose

Built at Glasgow

By whom built Barclay Curle & Co

Tons { Gross 4592.41
Net 2958.06

When built 1901

Engines made at Glasgow

By whom made Barclay Curle & Co

when made 1901

Boilers made at do

By whom made do

when made 1901

Registered Horse Power

Owners Union-Castle Mail S.S. Co Ltd

Port belonging to London

Nom. Horse Power as per Section 28 462

Is Refrigerating Machinery fitted No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 27.43.72 Length of Stroke 48 Revs. per minute 80 Dia. of Screw shaft as per rule 15.41

Dia. of Tunnel shaft as per rule 14.5 Dia. of Crank shaft journals as per rule 14.5 Dia. of Crank pin 14.5 Size of Crank webs 27x8.5 Dia. of thrust shaft under

collars 14.5 Dia. of screw 17.6 Pitch of screw 17.6 No. of blades 4 State whether moveable Yes Total surface 90

No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 2x8 & 2x8 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4-3.5 In Holds, &c. 2-3.5 to 2-1 hold, 2-3.5 to 2-2 hold

No. of bilge injections 1 sizes 7 Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size 2-3.5

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 Yes

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Booth

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

That pipes are carried through the bunkers For bilge pipes How are they protected Wood casing

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 Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from Above main deck (Auxiliary Boiler 1475 additional)

BOILERS, &c.—(Letter for record (8)) Total Heating Surface of Boilers 5314 sq. ft. Is forced draft fitted Power driven

No. and Description of Boilers 2 Single Ended (also Auxiliary Boilers) Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs.

Date of test 7.8.01 Can each boiler be worked separately Yes Area of fire grate in each boiler 63.25 No. and Description of safety valves to

each boiler 2 Spring loaded Area of each valve 9.6 Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 15 Mean dia. of boilers 15.3 Length 11.6 Material of shell plates Steel

Thickness 1.5 Range of tensile strength 28/31.5 Are they welded or flanged No Descrip. of riveting: cir. seams Lap long. seams Double Butt Straps

Diameter of rivet holes in long. seams 17/16 Pitch of rivets 10 Lap of plates or width of butt straps 1.9

Percentages of strength of longitudinal joint rivets 87 plate 85.625 Working pressure of shell by rules 204 lbs. Size of manhole in shell 16x12

Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Brightons Material Steel Outside diameter 4.12

Length of plain part top 1.9 Thickness of plates crown 1.9 bottom 1.9 Description of longitudinal joint Welded No. of strengthening rings —

Working pressure of furnace by the rules 192 Combustion chamber plates: Material Steel Thickness: Sides 19/32 Back 19/32 Top 19/32 Bottom 27/32

Pitch of stays to ditto: Sides 7.4x7.4 Back 7.4x7.4 Top 7.4x7.4 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 214 lbs.

Material of stays Steel Diameter at smallest part 1.45 Area supported by each stay 57 Working pressure by rules 190 End plates in steam space:

Material Steel Thickness 1 Pitch of stays 15.3 How are stays secured D. Nuts Working pressure by rules 180 lbs. Material of stays Steel

Diameter at smallest part 5.56 Area supported by each stay 248 Working pressure by rules 224 Material of Front plates at bottom Steel

Thickness 25/32 Material of Lower back plate Steel Thickness 1/16 Greatest pitch of stays 14 Working pressure of plate by rules 237

Diameter of tubes 2.5 Pitch of tubes 3.4 Material of tube plates Steel Thickness: Front 25/32 Back 13/16 Mean pitch of stays 10

Thickness across wide water spaces 13.5 Working pressures by rules 209 lbs. Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre (8.3x3.3) Length as per rule 30.5 Distance apart 7.8 Number and pitch of Stays in each 3-7.4

Working pressure by rules 146 lbs. Superheater or Steam chest; how connected to boiler None 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

Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —

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 —

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Lloyd's Register Foundation

W1095-0041

DONKEY BOILER— No. Description *Auxiliary Boiler - reported separately.*

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 Pressure to which they are adjusted If fitted with easing gear If steam from main boiler
enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range
strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivet
Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.
Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Desc.
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 uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— *Propeller shaft, 2 c.i. propeller blades, 1 pair bottom
brasses, set safety valve springs, cylinder escape valve & spring, feed pump, &
valve & spring, 1 set springs for H.P., 1 P & P pistons, 12 piston bolts, 1 dog
bit, 100 fire bars in addition to the articles required by the Rules.*

The foregoing is a correct description,

FOR BARCLAY, CURLE & CO., LTD. Manufacturer.

Ala: Clephom

Dates of Survey while building During progress of work in shops - - 1900: Nov. 23. Dec. 3. 6. 9. 17. 20. 22. Jan. 8. 12. 24. 23. Feb. 7. 18. 25. Mar. 9. 12. 18. 24.
During erection on board vessel - - 17. 22. 26. May. 2. 6. 8. 11. 15. 22. Jun. 14. 12. 18. 20. 27. July 6. Aug. 7. 9. 16. 20. 24. 27. 29. Sep. 5.
Total No. of visits 48.

Is the approved plan of main boiler forwarded herewith

Auxiliary

donkey

also Forging Report.

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

Material of screw shaft *Iron* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *No*
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
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
non-corrosive *—* If two liners are fitted, is the shaft lapped or protected between the liners *thus:—*



The engines & boilers of this vessel - which are similar to those of the *St. Aron Castle*, have been constructed under Special Survey & are of good materials & workmanship. They have been securely fitted on board & tried under steam.

This vessel is in my opinion eligible for notation **L.M.C. 10* in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

+ L.M.C. 10, 07 F.D. Blue Lipt

16/10/01

The amount of Entry Fee. £ 3 : : When applied for, 1901
Special £ 43. 2 : : 17.10.01
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ : : 16/10/01

H. Gardner Smith
Engineer Surveyor to Lloyd's Register of British & Foreign

Committee's Minute *Glasgow. 14 OCT. 1901*

Assigned *- L.M.C. 10, 01*
When fee paid