

REPORT ON MACHINERY

NOV 13 FEB 1899

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Port of Glasgow

Received at London Office

No. in Survey held at Glasgow Date, first Survey 23 Novr. 1897 Last Survey 4th Feby 1899.
 Reg. Book. (Number of Visits) _____
 on the S S Maplemore Tons { Gross 4717
 Master R Campbell Built at Glasgow By whom built G. Connell & Co When built 1898.9
 Engines made at Glasgow By whom made D Rowan & Son when made 1899
 Boilers made at Glasgow By whom made D Rowan & Son when made 1899
 Registered Horse Power _____ Owners Steam Ship Montrose Ltd Port belonging to Liverpool
 Nom. Horse Power as per Section 28 608. Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion Surface Condensing No. of Cylinders 3 No. of Cranks 3
 Diameter of Cylinders 28, 17 1/2 & 7 1/2 Length of Stroke 60 Revolutions per minute 65 Diameter of Screw shaft 16.2
 Diameter of Tunnel shaft 16.0 Diameter of Crank shaft journals 17 Diameter of Crank pin 17 Size of Crank webs 30" x 12"
 Diameter of screw 19-6 Pitch of screw 2 1/2 No. of blades 4 State whether moveable yes Total surface 113.5 sq
 No. of Feed pumps 2 Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work yes.
 No. of Bilge pumps 2 Diameter of ditto 7 Stroke 30 Can one be overhauled while the other is at work yes.
 No. of Donkey Engines _____ Sizes of Pumps 8x5x8 & 9x10x12 No. and size of Suctions connected to both Bilge and Donkey pumps _____
 In Engine Room one 3 1/2 Port, one 3 1/2 Star, & one 3 1/2 independent In Holds, &c. one 3 1/2 Port, one 3 1/2 Star in No 2
hold, and similarly for Nos 2, 3, 4 & 5 holds, and one 3" in tunnel well.
 No. of bilge injections one size 9" Connected to _____ to circulating pump _____ 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 yes
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks valves & cocks.
 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 all pipes to holds and tanks forward of engine room How are they protected Wood covering.
 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 Jan 1899 Is the screw shaft tunnel watertight yes.
 Is it fitted with a watertight door yes worked from top platform in engine room.

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 10261 sq Is forced draft fitted no
 No. and Description of Boilers Two Dented and one Sanded Working Pressure 200 Tested by hydraulic pressure to 400
 Date of test 2/11/98 Can each boiler be worked separately yes Area of fire grate in each boiler SE 62.5 sq DE 125 sq No. and Description of safety valves to
 each boiler two Cockburns Area of each valve SE 5.9 sq DE 12.5 sq Pressure to which they are adjusted 205 lbs Are they fitted
 with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 8 feet. Mean diameter of boilers 15-0"
 Length SE 17-3 DE 17-3 Material of shell plates Steel Thickness 1 1/2" Description of riveting: circum. seams Double & triple Routed Lap long. seams Double Rivet Butt.
 Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10" Lap of plates or width of butt straps 21 1/2" x 1 1/2" outside
 Per centages of strength of longitudinal joint SE 6.5 DE 8.6 Working pressure of shell by rules 230 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 16" x 1 1/2" No. and Description of Furnaces in each boiler SE 3 Minimum DE 6 Material Steel Outside diameter 17 1/2"
 Length of plain part top 1 1/2" bottom 1 1/2" Thickness of plates SE 7/16" DE 7/16" Description of longitudinal joint Welded No. of strengthening rings SE 5 DE 5
 Working pressure of furnace by the rules 270 Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 9/16" Top 5/8" Bottom 11/16"
 Pitch of stays to ditto: Sides SE 8-7/16" DE 8-7/16" Back SE 7-7/16" DE 8-7/16" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 210
 Material of stays Steel Diameter at smallest part SE 1 1/2" DE 1 1/2" Area supported by each stay SE 7.5 sq DE 7.5 sq Working pressure by rules 207 End plates in steam space:
 Material Steel Thickness 1 1/4" Pitch of stays 18 x 16" How are stays secured Double Strap, double nuts Working pressure by rules 219 Material of stays Steel
 Diameter at smallest part 7.50" Area supported by each stay 288 sq Working pressure by rules 260 Material of Front plates at bottom Steel
 Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays SE 14 1/2" Working pressure of plate by rules 290
 Diameter of tubes 3 1/2" Pitch of tubes 1 1/2" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 290 Girders to Chamber tops: Material Iron Depth and
 thickness of girder at centre SE 10 1/2" DE 10 1/2" Length as per rule SE 3 1/2" DE 4 1/2" Distance apart 8" Number and pitch of Stays in each SE four 9 1/2" DE four 9"
 Working pressure by rules SE 270 DE 270 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
 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 _____

Lloyd's Register
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 GLS183-0015

1676 3/4

DONKEY BOILER— Description *None*

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 boilers can enter the donkey boiler _____

Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____

Description of riveting long seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

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 _____ 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 uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *As required by rules, and the following.*

One pair connecting rod top & bottom end brasses, one air pump rod, one centrifugal pump propeller & shaft, two propeller blades, two valve spindles, one eccentric strap & pulley, set of piston springs, one propeller shaft, one third crank shaft, set of studs for propeller blade, one pump rod & bucket.

The foregoing is a correct description, *of studs for propeller blade, one pump rod & bucket.*

D. Wood & Co. Glasgow Manufacturer.

Dates of Survey while building

| | |
|-----------------------------------|---|
| During progress of work in shops— | 1897: Nov. 23, 30. Dec. 8, 21, 29. Jan. 14, 26. Feb. 28, 74. Mar. 4, 18, 28. Apr. 9. May. 9, 19, 24, 31. Jun. |
| | During erection on board vessel — |
| | Total No. of visits |

74 21, 22, 23, 26, 27, 29, 30, 31. 1899 Jan. 4, 10, 16, 19, 23, 24, 28, 31. Feb. 2, 7.

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

ENGINES—Length of stern bush *68 3/4* Diameter of crank shaft journals *as per rule 15.4* Diameter of thrust shaft under collars *17 1/8*

BOILERS—Range of tensile strength *28/32* Are they welded or flanged *neither* **DONKEY BOILERS**—No. *one* Range of tensile strength _____

Is the approved plan of main boiler forwarded herewith *Yes* Is the approved plan of donkey boiler forwarded herewith *None.*

The machinery of this vessel has been built under special survey. The material and workmanship being of good quality. It has been securely fitted on board, and a full speed trial has been run, when all worked satisfactorily.

Two boiler plans, an amended plan of Combustion Chamber top row of stays, and five forging reports now forwarded.

This vessels machinery is now in my opinion eligible for record of L.M.C. 2-99 in register book.

The report on electric lighting will be forwarded as soon as received from the engineers Messrs. H. & A. Allen & Co.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 2.99. Electric Light.

The amount of Entry Fee. £ 3 : : : When applied for, _____

Special £ 50 : 8 : : 14.2.99

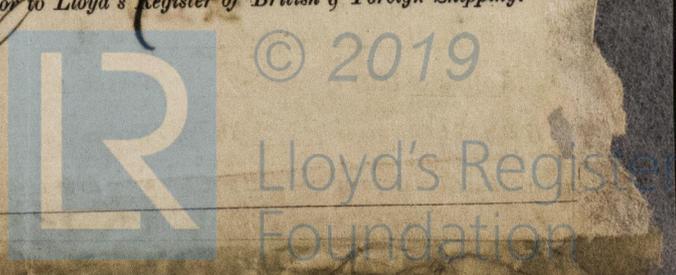
Donkey Boiler Fee £ : : : When received, _____

Travelling Expenses (if any) £ : : : 9.2.18.99

G.S. *A.C.H.*
14.2.99 13.2.99
George Murdoch
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **TUES. 14 FEB 1899** MACHINERY CERTIFICATE WRITTEN.

+ 2 me 2, 99



Certificate (if required) to be sent to _____