

REPORT ON MACHINERY.

No. 24207

Received at London Office

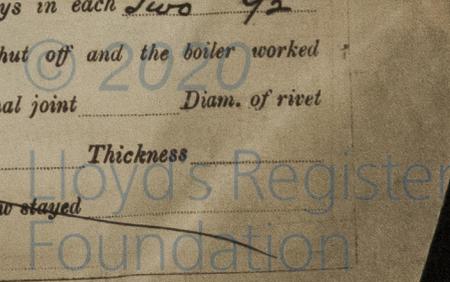
SAT SEP 13 1911

Date of writing Report 10 When handed in at Local Office 14th Sept 1911 Port of Bull
 No. in Survey held at Goole & Hull Date, First Survey Jan 3rd Last Survey 7th Sept 1911
 Reg. Book. 540.P. on the Se. Moreno (Number of Visits 55) Tons { Gross 204
 Master Goole Built at Goole By whom built Goole S. B. & Co Ltd Net 9 When built 1911
 Engines made at } Hull By whom made } Messers when made 1911
 Boilers made at } Hull By whom made } Earle's Co Ltd when made 1911
 Registered Horse Power 93 Owners Compania Argentina de Nav. Port belonging to Buenos Ayres
 Nom. Horse Power as per Section 28 93 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 13 1/2 - 22 - 37 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft 7.6 Material of screw shaft S
 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 Two separate liners 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 No Length of stern bush 34 1/2
 Dia. of Tunnel shaft 6.67 as per rule 6.75 as fitted Dia. of Crank shaft journals 7.0 as per rule 7.25 as fitted Dia. of Crank pin 7 1/2 Size of Crank webs 14 x 4 1/2 Dia. of thrust shaft under
 collars 7.25 Dia. of screw 8-6 Pitch of Screw 12-0 No. of Blades 4 State whether moveable No Total surface 36 sq
 No. of Feed pumps Two Diameter of ditto 2 1/4 Stroke 15 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps Two Diameter of ditto 2 1/4 Stroke 15 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines One Sizes of Pumps 6 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 2 1/2, One 3 1/2 In Holds, &c. One 2" to hold, one 2 1/2" to
after well, One 2" to fore tank, One 2 1/2" to after tank
 No. of Bilge Injections 1 sizes 3 1/2 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2 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 None
 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 hold suction 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
 Dates of examination of completion of fitting of Sea Connections 12.6.11 of Stern Tube 12.6.11 Screw shaft and Propeller 12.6.11
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Phoenix St. Gas. Hoerde
 Total Heating Surface of Boilers 1700 sq Is Forced Draft fitted No No. and Description of Boilers One byl. Multi S. Endel
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 19.5.11 No. of Certificate 1814
 Can each boiler be worked separately — Area of fire grate in each boiler 47 sq No. and Description of Safety Valves to
 each boiler Two Spring Area of each valve 4.9 sq Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers 13-3" Length 11-6" Material of shell plates S
 Thickness 1 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.O.
 long. seams O.A.S.I.R. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 5/16" Lap of plates or width of butt straps 18 1/8"
 Per centages of strength of longitudinal joint rivets 100 Working pressure of shell by rules 181 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 7 1/2" x 1 3/2" No. and Description of Furnaces in each boiler 2 Deighton's Material S Outside diameter 4-3 1/4"
 Length of plain part top — bottom — Thickness of plates crown 5/8" bottom 5/8" Description of longitudinal joint Welded No. of strengthening rings 0
 Working pressure of furnace by the rules 196 lbs Combustion chamber plates: Material S Thickness: Sides 23/32" Back 13/16" Top 23/32" Bottom 23/32"
 Pitch of stays to ditto: Sides 10 1/4" x 9 1/2" Back 9 3/8" x 8 1/2" Top 10 1/4" x 9 1/2" If stays are fitted with nuts or riveted heads No Working pressure by rules 182 lbs
 Material of stays S Diameter at smallest part 1 5/8" Area supported by each stay 103.125 Working pressure by rules 180 lbs End plates in steam space:
 Material S Thickness 1 5/32" Pitch of stays 18 1/2" x 17 1/2" How are stays secured O.N. Working pressure by rules 184 lbs Material of stays S
 Diameter at smallest part 6.23 Area supported by each stay 323.75 Working pressure by rules 200 lbs Material of Front plates at bottom S
 Thickness 29/32" Material of Lower back plate S Thickness 7/8" Greatest pitch of stays 13 3/4" x 9 3/8" Working pressure of plate by rules 191 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/8" x 4 1/8" Material of tube plates S Thickness: Front 27/32" Back 13/16" Mean pitch of stays 9 3/4"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 196 lbs Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 9" x 1 1/2" Length as per rule 2-6 23/32" Distance apart 10 1/4" Number and pitch of stays in each Two 9 1/2"
 Working pressure by rules 194 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 —

W1541-0112



VERTICAL DONKEY BOILER— Manufacturers of Steel.

No.	Description		
Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate
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		Date of adjustment
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey

SPARE GEAR. State the articles supplied:— *Two each top and bottom end bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set feed and bilge pump valves, one propeller*
assortment of assorted bolts and nuts, Iron various sizes

The foregoing is a correct description,

F. S. Dalthorpe Manufacturer.

Dates of Survey while building: During progress of work in shops --- 1911: Jan 3, 10, 12, 14, 18, 31 Feb 2, 3, 8, 10, 11, 13, 15, 20, 21, 22, 24 Mar 2, 6, 8, 13, 21, 22, 23 Apr 5, 7
 During erection on board vessel --- Apr 13, 20, 27, May 1, 4, 9, 16, 19, 24, 27, 30 Jun 8, 12, 19, 26, 28, July 3, 19, 22, 25, 27, 29, 31, Aug 2, 11, 24, 30
 Total No. of visits 55

Is the approved plan of main boiler forwarded herewith *No it was sent on with Fuel Rpt 8° 23829.*

Dates of Examination of principal parts—Cylinders 9.5.11 Slides 19.6.11 Covers 9.5.11 Pistons 13.4.11 Rods 3.1.11
 Connecting rods 22.2.11 Crank shaft 28.6.11 Thrust shaft 28.6.11 Tunnel shafts 31.7.11 Screw shaft 8.6.11 Propeller 8.6.11
 Stern tube 30.5.11 Steam pipes tested 31.7.11 Engine and boiler seatings 19.6.11 Engines holding down bolts 2.8.11
 Completion of pumping arrangements 7.9.11 Boilers fixed 2.8.11 Engines tried under steam 7.9.11
 Main boiler safety valves adjusted 7.9.11 Thickness of adjusting washers 3/8" 3/8"

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines and boilers of this vessel have been constructed under special survey in accordance with the Rules. The workmanship and materials are good. The boiler tested by hydraulic pressure, and with the engines secured on board & tested under steam, they are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed, with the notation of L.M.C. 9.11 in the Register Book*

It is submitted that this vessel is eligible for THE RECORD + LMC 9.11.

J.R.R.

J.W.D.

The amount of Entry Fee .. £ 1 : : When applied for, 15-9-1911
 Special .. £ 13 : :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : 11 : : When received, 30-9-1911

James Barclay
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUE SEP 19 1911
 Assigned *thmc 9.11*



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