

REPORT ON MACHINERY.

No. 12574.

Received at London Office

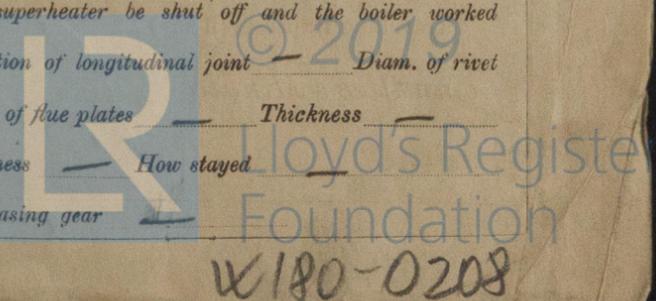
THUR. 18 MAR 1909

Date of writing Report 11th Feb 1909 When handed in at Local Office 17th Feb 1909 Port of Leith
 No. in Survey held at Lith Date, First Survey 12th Aug. 1908 Last Survey 15th March 1909
 Reg. Book. 54 PP on the S/S "Oder" (Number of Visits 28)
 Master Lith Built at Lith By whom built Ramsey & Ferguson Tons { Gross 964.5 Net 549.5
 Engines made at Lith By whom made Ramsey & Ferguson when made 1909
 Boilers made at Lith By whom made Ramsey & Ferguson when made 1909
 Registered Horse Power 132 Owners James Currie & Co Port belonging to Lith
 Nom. Horse Power as per Section 28 132 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 16 1/2, 27, 44 Length of Stroke 30 Revs. per minute 95 Dia. of Screw shaft as per rule 9.6 Material of screw shaft 2mm
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liners Is the after end of the liner made water tight
 the propeller boss No 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 No If two
 liners are fitted, is the shaft lapped or protected between the liners No Length of stern bush 39
 Dia. of Tunnel shaft as per rule 8.17 Dia. of Crank shaft journals as per rule 8.57 Dia. of Crank pin 8 1/2 Size of Crank webs 13 1/2 x 6 Dia. of thrust shaft under
 collars 8 1/2 Dia. of screw 11-3 Pitch of Screw 11-3 No. of Blades 4 State whether moveable No Total surface 38 1/2
 No. of Feed pumps 2 Diameter of ditto 2 3/4 Stroke 15 Can one be overhauled while the other is at work No
 No. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 15 Can one be overhauled while the other is at work No
 No. of Donkey Engines 2 Sizes of Pumps 6x4+6i 7+8+12 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 2" on 2 1/2" In Holds, &c. In No 1 + 2 holds, Two 2" in each.
 No. of Bilge Injections 1 sizes 4" Connected to circulating pump Is a separate Donkey Suction fitted in Engine room & size Two 2 1/2"
 Are all the bilge suction pipes fitted with roses No Are the roses in Engine room always accessible No Are the sluices on Engine room bulkheads always accessible No
 Are all connections with the sea direct on the skin of the ship No Are they Valves or Cocks Both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates No 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 No Are the Blow Off Cocks fitted with a spigot and brass covering plate No
 What pipes are carried through the bunkers None How are they protected No
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times No
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges No
 Dates of examination of completion of fitting of Sea Connections 19/12/08 of Stern Tube 19/12/08 Screw shaft and Propeller 19/12/08
 Is the Screw Shaft Tunnel watertight No Is it fitted with a watertight door No worked from Upper Platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Colwith & Co
 Total Heating Surface of Boilers 2303 1/2 Is Forced Draft fitted No No. and Description of Boilers Two Simple vertical
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 14/1/09 No. of Certificate 652
 Can each boiler be worked separately No Area of fire grate in each boiler 40 1/2 No. and Description of Safety Valves to
 each boiler Two Spring Valves Area of each valve 3.97 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear No
 Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 11-3 Length 10-3 Material of shell plates S
 Thickness 1" Range of tensile strength 27-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap 2H
 long. seams A.H. Riv. riv. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 8 1/2 Lap of plates or width of butt straps 17 1/2"
 Per centages of strength of longitudinal joint 87 Working pressure of shell by rules 189 Size of manhole in shell 12x16
 Size of compensating ring 9 1/2" Nuts No. and Description of Furnaces in each boiler 2 Morrison's Material S Outside diameter 44 1/4
 Length of plain part top 7 1/2 Thickness of plates bottom 3 1/2 Description of longitudinal joint Welded No. of strengthening rings 1
 Working pressure of furnace by the rules 186 Combustion chamber plates: Material S Thickness: Sides 1 1/2 Back 5/8 Top 1 1/2 Bottom 1/6
 Pitch of stays to ditto: Sides 7x9 Back 8 1/2 x 8 1/2 Top 8x8 If stays are fitted with nuts or riveted heads No Working pressure by rules 187
 Material of stays S Diameter at smallest part 1.45 Area supported by each stay 63 Working pressure by rules 184 End plates in steam space:
 Material S Thickness 1" Pitch of stays 15 1/2 x 16 How are stays secured A.H. Riv. Working pressure by rules 180 Material of stays S
 Diameter at smallest part 5.05 Area supported by each stay 248 Working pressure by rules 183 Material of Front plates at bottom S
 Thickness 1 1/2 Material of Lower back plate S Thickness 3/2 Greatest pitch of stays 14" Working pressure of plate by rules 186
 Diameter of tubes 3 1/4 Pitch of tubes 4 3/4 Material of tube plates S Thickness: Front 1 1/2 Back 1 1/2 Mean pitch of stays 8 1/2 x 18 1/2
 Pitch across wide water spaces 14" A.H. Working pressures by rules 231 Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 7 1/4 x 1 1/2 Length as per rule 27" Distance apart 8" Number and pitch of stays in each 2, 8"
 Working pressure by rules 188 Superheater or Steam chest; how connected to boiler No Can the superheater be shut off and the boiler worked
 separately No 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 —

W180-0208



VERTICAL DONKEY BOILER— *Manufacturers of Steel No donkey boiler*

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with casing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

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 _____ Per centage of strength of joint _____ Rivets _____ Plates _____

Working pressure of shell by rules _____ 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 _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *Two top end & two bottom end connecting rod bolts & nuts, two main bearing bolts, one set emptying bolts, one set fuel & bilge pump valves, assorted bolts & nuts, 20m of various sizes, one Propeller.*

The foregoing is a correct description,

Manufacturer.

John J. Ramsay
ENGINEERING DRAWING

Dates of Survey while building	During progress of work in shops - -	1908 Aug 12-19. Sept 2-7. 18-28. Oct. 2-5. 12-29. 1903-10-13-27-30. Dec. 1909 Jan 7-12-14-19.
	During erection on board vessel - -	1909 Feb 18-25. March 4-15.
	Total No. of visits	24.

Is the approved plan of main boiler forwarded herewith *no retained for sister vessel.*

Dates of Examination of principal parts—Cylinders	<i>19/11/08</i>	Slides	<i>6/11/08</i>	Covers	<i>12/10 3/11/08</i>	Pistons	<i>3/11/08</i>	Rods	<i>19/11/08</i>
Connecting rods	<i>19/11/08</i>	Crank shaft	<i>19/11, 15/12, 2/10</i>	Thrust shaft	<i>12/10, 13/11</i>	Tunnel shafts	<i>6/11, 13/11, 30/11/08</i>	Screw shaft	<i>2/10, 13/11, 30/11/08</i>
Stern tube	<i>13/11, 4/12/08</i>	Steam pipes tested	<i>25/2/09</i>	Engine and boiler seatings	<i>18/2/09</i>	Engines holding down bolts	<i>18/2/09</i>		
Completion of pumping arrangements	<i>4/3/09</i>	Boilers fixed	<i>18/2/09</i>	Engines tried under steam	<i>4/3/09</i>				
Main boiler safety valves adjusted	<i>4/3/09</i>	Thickness of adjusting washers	<i>Stn. 1/16" 5 3/32" Port 1/16" 5 1/4"</i>						
Material of Crank shaft	<i>Stn</i>	Identification Mark on Do.	<i>154 GAH</i>	Material of Thrust shaft	<i>Stn</i>	Identification Mark on Do.	<i>154 GAH</i>		
Material of Tunnel shafts	<i>Stn</i>	Identification Marks on Do.	<i>154 GAH</i>	Material of Screw shafts	<i>20m</i>	Identification Marks on Do.	<i>154 GAH</i>		
Material of Steam Pipes	<i>Copper</i>	Test pressure	<i>360 lbs.</i>						

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

The machinery of this vessel has been built under special survey, the materials and workmanship are sound and good and under the vessel slipth in my opinion to have the work of L.M.C. 3.09.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.09.

Elec. light. *ARRR JWD 19.3.09 19/3/09*

The amount of Entry Fee	£ 2	When applied for,	
Special	£ 19.16	When received,	<i>17/3/1909</i>
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£		<i>19/3/09</i>

J. A. Drake
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **FRI. 19 MAR 1909**
Assigned *+ L.M.C. 3.09 Elec. light.*



MACHINERY CERTIFICATE WRITTEN.

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