

REPORT ON MACHINERY.

No. 25290

Received at London Office SAT. JUN. 1-1912

Date of writing Report 20-5-12 When handed in at Local Office 22-5-12 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 14 Dec. 11 Last Survey 20-5-1912
Reg. Book. on the Steel S/S RONDOR. (Number of Visits 35) Tons Gross 1906 Net 1070

Master Lubitt Built at Sunderland By whom built S. Pawtins & Sons Ltd (No. 263) When built 1912

Engines made at Sunderland By whom made George Black Ltd (No. 958) when made 1912

Boilers made at Sunderland By whom made George Black Ltd (No. 958) when made 1912

Registered Horse Power Owners Pelton & Co. (R. Gardiner & Gray) Port belonging to Newcastle

Nom. Horse Power as per Section 28 199 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 20 1/2, 33, 54 Length of Stroke 39 Revs. per minute 65 Dia. of Screw shaft as per rule 11.58 Material of screw shaft as fitted 1 1/8 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 Yes

liners are fitted, is the shaft lapped or protected between the liners No Length of stern bush 3-11 1/2

Dia. of Tunnel shaft as per rule 10.33 Dia. of Crank shaft journals as per rule 10.85 Dia. of Crank pin 11 Size of Crank webs 6 1/2 x 7 1/2 Dia. of thrust shaft under collars 1 1/8 Dia. of screw 14-3 Pitch of Screw 15-9 No. of Blades 4 State whether moveable No Total surface 59.5

No. of Feed pumps 2 Diameter of ditto 2 3/4 Stroke 22 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 22 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 10 8 12 x 10 5 2 8 2 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 3 @ 3" & 1 @ 5" (separate) In Holds, &c. Main hold - 2 @ 3" after hold - 2 @ 3" Tunnel Well - 1 @ 3" Bunker pockets - 2 @ 3"

No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump No. Is a separate Donkey Suction fitted in Engine room & size Yes 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 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 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

Dates of examination of completion of fitting of Sea Connections 6-4-12 of Stern Tube 15-4-12 Screw shaft and Propeller 23-4-12

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record (5)) Manufacturers of Steel John Spence & Sons & Sunerkschiff Werks Kaiser. Hamburg. Bruckhausen.

Total Heating Surface of Boilers 3090 sq ft As Forced Draft fitted No No. and Description of Boilers 1 no single ended

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 12-3-12 No. of Certificate 3002

Can each boiler be worked separately Yes Area of fire grate in each boiler 48.75 sq ft No. and Description of Safety Valves to each boiler 2 no direct spring Area of each valve 7.07 sq ft Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 21" Mean dia. of boilers 13.3" Length 10.6" Material of shell plates Steel

Thickness 1 1/2 Range of tensile strength 29 1/2-33 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams 10R long. seams 10R 10BS Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 7 1/8 Lap of plates or width of butt straps 16 3/8

Per centages of strength of longitudinal joint rivets 87.5 Working pressure of shell by rules 182 Size of manhole in shell 16 x 13 plate 85.5

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 3-4 1/2

Length of plain part top 2-2 1/2 bottom 6-2 1/2 Thickness of plates crown 3/4 Description of longitudinal joint welded No. of strengthening rings one

Working pressure of furnace by the rules 181 Combustion chamber plates: Material Steel Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 1/8

Pitch of stays to ditto: Sides 9 x 9 3/4 Back 10 x 9 Top 8 1/2 x 10 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180

Material of stays Steel Diameter at smallest part 2.07 Area supported by each stay 900 Working pressure by rules 203 End plates in steam space: Material Steel Thickness 1 1/32 Pitch of stays 19 3/4 x 18 How are stays secured 10R Working pressure by rules 182 Material of stays Steel

Diameter at smallest part 5.41 Area supported by each stay 3120 Working pressure by rules 180 Material of Front plates at bottom Steel

Thickness 1 3/16 Material of Lower back plate Steel Thickness 29/32 Greatest pitch of stays 15 1/4 x 9 Working pressure of plate by rules 181

Diameter of tubes 3 1/2 Pitch of tubes 4 3/8 x 4 1/2 Material of tube plates Steel Thickness: Front 1 3/16 Back 25/32 Mean pitch of stays 10.35

Pitch across wide water spaces 14 1/4 Working pressures by rules 210 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 2 @ 1/8 x 7 1/2 Length as per rule 2-4 1/2 Distance apart 10 1/2 Number and pitch of stays in each 2 @ 8 1/4

Working pressure by rules 183 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

009401-009408-0011



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____
 Made at _____ By whom made _____
 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 _____
 Material of shell plates _____ Thickness _____ Range of tensile strength _____
 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. _____ 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 _____ 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 connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed, bilge, air and circulating pump valves, iron and bolts of various sizes and one propeller.

The foregoing is a correct description,
 FOR GEORGE CLARK, LIMITED
 James C. Clark, Manufacturer.

Dates of Survey while building	1911 Dec. 14, Jan. 4, 12, 16, 17, 25, 26, 30, Feb. 7, 13, 15, 21, 23, Mar. 1, 4, 6, 12, 28
During progress of work in shops	Apr. 2, 4, 6, 11, 12, 15, 17, 23, 24, 26, 30, May 1, 14, 16, 17, 18, 20
During erection on board vessel	(35)
Total No. of visits	

Is the approved plan of main boiler forwarded herewith yes
 " " " donkey " " " yes

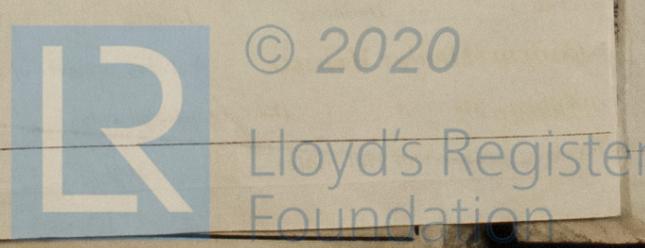
Dates of Examination of principal parts—Cylinders 7-2-12 Slides 28-3-12 Covers 26-2-12 Pistons 28-3-12 Rods 13-2-12
 Connecting rods 1-3-12 Crank shaft 4-3-12 Thrust shaft 6-3-12 Tunnel shafts 2-4-12 Screw shaft 12-4-12 Propeller 21-2-12
 Stern tube 11-4-12 Steam pipes tested 24-4-12 Engine and boiler seatings 15-4-12 Engines holding down bolts 30-4-12
 Completion of pumping arrangements 14-5-12 Boilers fixed 26-4-12 Engines tried under steam 1-5-12
 Main boiler safety valves adjusted 1-5-12 Thickness of adjusting washers P. 13M. - P 3/8 line, S 3/8. S 1/8. P 3/8, S 1/16
 Material of Crank shaft Steel Identification Mark on Do. 1151 MB Material of Thrust shaft Steel Identification Mark on Do. 1150 MB.
 Material of Tunnel shafts Steel Identification Marks on Do. 1152-3 MB Material of Screw shafts Steel Identification Marks on Do. 1149 MB.
 Material of Steam Pipes Solid drawn copper 4 @ 4" x 6 mm. Test pressure 400 lbs per square inch.

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The materials and workmanship are good.
 The machinery has been made under special survey and is eligible in my opinion for classification and the record is—
 ✕ LMC 5.12.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.12.
 J.W.D. 3/6/12

The amount of Entry Fee .. £ 2 : : When applied for, 29.5.12
 Special .. £ 29.17 : :
 Donkey Boiler Fee .. £ : : When received, 1.6.12
 Travelling Expenses (if any) £ : :
 Committee's Minute
 Assigned

Henry Lewis Davis
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.

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