

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.

Master Lubitt Built at Sunderland By whom built S. Pawling & 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 & J. 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 20½, 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 11½ 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 — 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 —

liners are fitted, is the shaft lapped or protected between the liners — Length of stern bush 3-11½

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 16½ x 7½ Dia. of thrust shaft under

collars 11½ 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 2¾ Stroke 22 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3½ 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 4 8 3 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 ports - 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 (S)) Manufacturers of Steel John Spencer & Sons & Siemens & Halske AG, Düsseldorf, Kaiser.

Total Heating Surface of Boilers 3090 sq ft Is Forced Draft fitted No No. and Description of Boilers Two single ended

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 12-5-12 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 Two 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 1½ Range of tensile strength 29½-33 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 1½ Pitch of rivets 7½ Lap of plates or width of butt straps 16½

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

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 3-4½

Length of plain part top 4-2½ bottom 6-2½ Thickness of plates crown 3½ 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 1½ Back 1½ Top 1½ Bottom 1½

Pitch of stays to ditto: Sides 9 x 9¾ Back 10 x 9 Top 8½ x 10½ 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 1½ Pitch of stays 9¾ 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 13½ Material of Lower back plate Steel Thickness 29½ Greatest pitch of stays 15½ x 9 Working pressure of plate by rules 181

Diameter of tubes 3½ Pitch of tubes 43½ x 4½ Material of tube plates Steel Thickness: Front 13½ Back 25 Mean pitch of stays 10.35

Pitch across wide water spaces 14½ Working pressures by rules 210 Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 20 x 1½ Length as per rule 2-4½ Distance apart 10½ Number and pitch of stays in each 2 @ 8½

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

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VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	When made	Where fixed
Made at	By whom made	No. of Certificate	Fire grate area
Working pressure	tested by hydraulic pressure to	Date of test	Description of Safety
Valves	No. of Safety Valves	Area of each	Date of adjustment
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Pressure to which they are adjusted	Dia. of donkey boiler
Material of shell plates	Thickness	Range of tensile strength	Length
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Descrip. of riveting long. seams
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace Top	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	During progress of work in shops --	1911 Dec. 14 Jan. 4, 12, 16, 17, 25, 26, 30 Feb. 7, 13, 15, 21, 23 Mar. 1, 4, 6, 12, 20
while building	During erection on board vessel --	Apr. 2, 4, 6, 11, 12, 15, 17, 23, 24, 26, 30 May 1, 14, 16, 17, 18, 20
Total No. of visits		(35)
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	Per. B.M. - P _{3/8} line, S _{3/8} , S _{1/2} , P _{3/8} , S _{1/2}
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"x6" r.s.	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 -
+ LMC 5.12.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 5.12.

J.W.D.
3/6/12

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

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

Committee's Minute

Assigned

TUE. JUN. 4 - 1912

+ LMC 5.12

MAINTENANCE CERTIFICATE



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Foundation