

REPORT ON MACHINERY.

No. 34072

Received at London Office WED. JUN. 3-1914

Date of writing Report 26-5-1914 When handed in at Local Office 26-5-1914 Port of Glasgow.

No. in Survey held at Glasgow, Ardrossan Date, First Survey 12-1-14 Last Survey 28-5-1914.
Reg. Book. on the T.S.S. "ROBINA" (Number of Visits 13)Master H. E. Cleave. Built at Ardrossan. By whom built Ardrossan Ship Bldg Co. Tons { Gross 306.24.
Net 121.38.
When built 1914.

Engines made at Glasgow. By whom made Messrs. McKie & Baxter Ltd when made 1914.

Boilers made at Paisley By whom made J. F. Craig & Co. N° 539. when made 1914.

Registered Horse Power Owners (William Arthur Turner) Port belonging to Ardrossan.

Nom. Horse Power as per Section 28 113.5 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted No.

ENGINES, &c.—Description of Engines *Wright triple expansion* No. of Cylinders 5 No. of Cranks 5
Dia. of Cylinders 10 1/2" x 14" x 28". Length of Stroke 18". Revs. per minute 216. Dia. of Screw shaft as per rule 5.25" Material of Steel
as fitted 5 1/2" screw shaft)
Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liner. Is the after end of the liner made water tight
in the propeller boss 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 If two
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 24".
Dia. of Tunnel shaft as per rule 4.91" Dia. of Crank shaft journals as per rule 5.15" Dia. of Crank pin 5 1/4" Size of Crank webs 9" x 3 3/4" Dia. of thrust shaft under
as fitted 5" collars 5 1/4" Dia. of screw 5-10" Pitch of Screw 8'-3" No. of Blades 3 State whether moveable no. Total surface 24 sq ft for 2 screws.
No. of Feed pumps 2 Diameter of ditto 5" Stroke 12" Can one be overhauled while the other is at work yes.
No. of Bilge pumps 1 Diameter of ditto 3" Stroke 5" Can one be overhauled while the other is at work General Donkey used.
No. of Donkey Engines 1-4 1/2 x 5 x 6 Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 3 - 2" In Holds, &c. 2 Forward. 1 Aft. 2".

No. of Bilge Injections 1 sizes 4 1/2". Connected to condenser, or to circulating pump pump. Is a separate Donkey Suction fitted in Engine room & size 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 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 28/4/14. of Stern Tube 28/4/14. Screw shaft and Propeller 28/4/14.
Is the Screw Shaft Tunnel watertight Aft Hold. Is it fitted with a watertight door yes. worked from Main deck.

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
each boiler 1 pair Spring loaded Area of each valve 9.6 sq ft Pressure to which they are adjusted 165 lbs. Are they fitted with easing gear yes.
Smallest distance between boilers or uptakes and bunkers or woodwork 2'-6". Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
bottom Thickness of plates bottom
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules 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

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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 Description of Safety
Working pressure tested by hydraulic pressure to Date of test Pressure to which they are adjusted Date of adjustment
Valves No. of Safety Valves Area of each Dia. of donkey boiler Length
If fitted with easing gear If steam from main boilers can enter the donkey boiler Descrip. of riveting long. seams
Material of shell plates Thickness Range of tensile strength Lap of plating Per centage of strength of joint Rivets
Dia. of rivet holes Whether punched or drilled Pitch of rivets No. of stays to do. Dia. of stays Plates
Working pressure of shell by rules Thickness of shell crown plates Radius of do. Description of joint
Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Stayed by
Working pressure of furnace by rules Thickness of furnace crown plates Radius of do. Dates of survey
Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— Usual spare gear as required by rules also 6 Condenser tubes
6 boiler tubes 1 Main and 1 donkey check valves. 1 set spare air pump valves.

The foregoing is a correct description,
Manufacturer.

Wickie & Baxter

Dates of Survey while building
During progress of work in shops - - - 1914. Jan 28. Mar 4. 10. 20. 27. Apr 1. 7. 8. 15. 21. 22. 28. 29. May 5. 6. 8. 11. 14.
During erection on board vessel - - - 16. 25. 27.
Total No. of visits 22
Is the approved plan of main boiler forwarded herewith ☒ Yes

Dates of Examination of principal parts—Cylinders 24-3-14. Slides 10-3-14. Covers 10-3-14. Pistons 21-3-14. Rods 21-3-14.
Connecting rods 20-3-14. Crank shaft 4-3-14. Thrust shaft 4-3-14. Tunnel shafts 4-3-14. Screw shaft 4-3-14. Propeller 4-3-14.
Stern tube 4-3-14. Steam pipes tested 8-5-14. Engine and boiler seatings 4-4-14. Engines holding down bolts 6-5-14.
Completion of pumping arrangements 11-5-14. Boilers fixed 11-5-14. Engines tried under steam 28th May 1914.
Main boiler safety valves adjusted 16-5-14. Thickness of adjusting washers P. 3/8. S. 3/8.
Material of Crank shaft Steel Identification Mark on Do. 6937 LLOYD'S A.M.C.K. Material of Thrust shaft Steel Identification Mark on Do. 6871 LLOYD'S A.M.C.K.
Material of Tunnel shafts Steel Identification Marks on Do. 6871 LLOYD'S A.M.C.K. Material of Screw shafts Steel Identification Marks on Do. 6871 LLOYD'S A.M.C.K.
Material of Steam Pipes Copper. Test pressure 320 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been constructed under special survey in accordance with the rules and approved plans, and has been seen working under steam satisfactorily. Materials and workmanship good, and in my opinion is suitable for classification with record. + LMC.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5/14. F.D.

JWR 4/6/14
JWR

The amount of Entry Fee .. £ 2 : 0 : 0 When applied for, 1-6-11.
Special .. £ 17 : 0 : 0
Donkey Boiler Fee .. £ : : :
Travelling Expenses (if any) £ - : 11 : 0 When received, 6/6/14

Committee's Minute GLASGOW 2-JUN.1914
Assigned + L.M.C. 5/14

Engineer Surveyor to Lloyd's Register of British & Foreign Ships

