

REPORT ON MACHINERY.

No. 25884

Received at London Office

MON. DEC. - 9. 1912

Date of writing Report 19 When handed in at Local Office 7.12.12 Port of Hull

No. in Survey held at Hull Date, First Survey Sep 3rd Last Survey Nov 28th 1912
 Reg. Book. 54 Supt on the Steel S.S.K. "EGIR". (Number of Visits 22)

Master Built at Selby By whom built Cochran & Sons. Tons Gross 244 Net 95
 Engines made at By whom made when made 1912.
 Boilers made at Hull By whom made Messrs. Charles R. Adams & Co. Ltd. when made 1912.
 Registered Horse Power Owners R. J. Watley & Sons Ltd. Port belonging to Hull.
 Nom. Horse Power as per Section 28 48. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 15"-30" Length of Stroke 21" Revs. per minute 130 Dia. of Screw shaft as per rule 6.91" Material of screw shaft Iron
 as fitted 7" 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 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 2'-4"

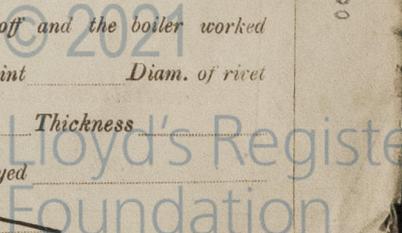
Dia. of Tunnel shaft as per rule 6.048" Dia. of Crank shaft journals as per rule 6.38" Dia. of Crank pin 6.3" Size of Crank webs 4.3" x 12.5" Dia. of thrust shaft under collars 6.5" Dia. of screw 4'-8" Pitch of Screw 8'-6" No. of Blades 4 State whether moceable No. Total surface 25.5"
 No. of Feed pumps 1 Diameter of ditto 2.5" Stroke 11" Can one be overhauled while the other is at work No.
 No. of Bilge pumps 1 Diameter of ditto 2.5" Stroke 11" Can one be overhauled while the other is at work No.
 No. of Donkey Engines 1 Sizes of Pumps 5" x 2.5" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One 2" suction. In Holds, &c. Two 2" in main hold on port & one starboard. One 2.5" from ballast tank.
 No. of Bilge Injections 1 sizes 2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 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 No.
 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 No.
 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 27.9.12 of Stern Tube 27.9.12 Screw shaft and Propeller 27.9.12
 Is the Screw Shaft Tunnel watertight No. Is it fitted with a watertight door No. worked from No.

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Clydebank Iron & Steel Works, Glasgow.

Total Heating Surface of Boilers 900 sq ft Is Forced Draft fitted No. No. and Description of Boilers One up. mult. simple in shell.
 Working Pressure 131 lbs. Tested by hydraulic pressure to 260 lbs. Date of test 4.11.12 No. of Certificate 1939.
 Can each boiler be worked separately No. Area of fire grate in each boiler 32.5 sq ft No. and Description of Safety Valves to each boiler Two spring. Area of each valve 3.94 sq ft Pressure to which they are adjusted 135 lbs. Are they fitted with easing gear Yes.
 Smallest distance between boilers or uptakes and bunkers or woodwork 5" Ex. Mean dia. of boilers 11'-6" Length 9'-6" Material of shell plates S.
 Thickness 3/4" Range of tensile strength 28 tons Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams R.P.S. long. seams R.S.Y.P. Diameter of rivet holes in long. seams 3/4" Pitch of rivets 5 1/16" Lap of plates or width of butt straps 11 1/2"
 Per centages of strength of longitudinal joint rivets 86 plate 85 Working pressure of shell by rules 135 lbs. Size of manhole in shell 16" x 12"
 Size of compensating ring 4" x 3" No. and Description of Furnaces in each boiler Two plain Material S. Outside diameter 3'-4"
 Length of plain part top 6'-0 1/2" bottom 4" Thickness of plates crown 19" bottom 32" Description of longitudinal joint Weld. No. of strengthening rings 0
 Working pressure of furnace by the rules 132 lbs. Combustion chamber plates: Material S. Thickness: Sides 32" Back 32" Top 19" Bottom 32"
 Pitch of stays to ditto: Sides 10" x 9" Back 9 1/2" x 9" Top 10" x 9" If stays are fitted with nuts or riveted heads No. Working pressure by rules 135 lbs.
 Material of stays S. Diameter at smallest part 1.760" Area supported by each stay 1180" Working pressure by rules 130 lbs. End plates in steam space: Material S. Thickness 13" Pitch of stays 15" x 15" How are stays secured R.S.S.W. Working pressure by rules 139 lbs. Material of stays S.
 Diameter at smallest part 3.130" Area supported by each stay 2250" Working pressure by rules 140 lbs. Material of Front plates at bottom S.
 Thickness 25" Material of Lower back plate S. Thickness 3/4" Greatest pitch of stays 14 1/2" x 9" Working pressure of plate by rules 133 lbs.
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 4 3/4" Material of tube plates S. Thickness: Front 25" Back 32" Mean pitch of stays 9 3/4"
 Pitch across wide water spaces 15" x 14 1/2" Working pressures by rules 180 lbs. Girders to Chamber tops: Material S. Depth and thickness of girder at centre 4" - 1 1/2" Length as per rule 2'-5 1/2" Distance apart 10" Number and pitch of stays in each 2-9"
 Working pressure by rules 134 lbs. Superheater or Steam chest; how connected to boiler 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

If not, state whether, and when, one will be sent

9810-11800-101800



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

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

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 easing 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 _____ 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 & bottom and armature of red bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed & bilge pump valves, iron of various sizes, a quantity of assorted bolts, nuts etc.*

The foregoing is a correct description,
Arthur Palmer Manufacturer.

Dates of Survey while building: During progress of work in shops -- } 1912: - Sep. 3, 19, 23, 25, 27, Oct. 3, 8, 10, 16, 18, 23, 29 Nov. 4, 7, 8, 15, 19, 21, 22, 25, 27, 28
 During erection on board vessel --- }
 Total No. of visits 22

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

Dates of Examination of principal parts—Cylinders 10.10.12 Slides 8.11.12 Covers 8.11.12 Pistons 29.10.12 Rods 29.10.12
 Connecting rods 4.11.12 Crank shaft 16.10.12 Thrust shaft 4.11.12 Tunnel shafts ✓ Screw shaft 25.9.12 Propeller 25.9.12
 Stern tube 25.9.12 Steam pipes tested 22.11.12 Engine and boiler seatings 24.9.12 Engines holding down bolts 15.11.12
 Completion of pumping arrangements 24.11.12 Boilers fixed 25.11.12 Engines tried under steam 25.11.12
 Main boiler safety valves adjusted 25.11.12 Thickness of adjusting washers *PORT 3/8" STARBOARD 1/8"*
 Material of Crank shaft *I* Identification Mark on Do. *Nº 915 T.G.D.* Material of Thrust shaft *I* Identification Mark on Do. *Nº 915 T.G.D.*
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *I* Identification Marks on Do. *Nº 915 J.W.G.*
 Material of Steam Pipes *Solid drawn copper* ✓ Test pressure *260 lbs. per sq. inch hydraulic*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The engines & boiler of this vessel have been completed under special survey in accordance with the Rules. The materials & workmanship are sound & good. The boiler tested by hydraulic pressure, & with the engines secured on board & tested under steam they are now in good order & safe working condition & respectfully submitted as being eligible in my opinion to be classed with the notation of + L.M.C. 11.12 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 11.12.
J.W.D. 9/10/12

The amount of Entry Fee .. £ 1 0 0 : When applied for, _____
 Special .. £ 8 0 0 : 27.11.12
 Donkey Boiler Fee .. £ _____ : When received, *MR*
 Travelling Expenses (if any) £ 8/2 : 29/11/12

Committee's Minute TUE. DEC. 10. 1912
 Assigned *Thine 11.12*

Arthur Palmer
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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