

REPORT ON MACHINERY.

No. 19968

Port of Hull

Received at London Office THUR. 16 APL 1908

No. in Survey held at Hull Date, first Survey Dec 4th 07 Last Survey April 1908
 Reg. Book. Steel Se. K. New Brown (Number of Visits 27)
 Master Hull Built at Hull By whom built Messrs Charles Co Ld Tons { Gross 283 Net 123
 Engines made at } Hull By whom made } Messrs Charles Co Ld when made } 1908
 Boilers made at } Hull By whom made } Messrs Charles Co Ld when made } 1908
 Registered Horse Power 1 Owners Crown Steam Fishing Co Ld Port belonging to Grimby
 Nom. Horse Power as per Section 28 88 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12³/₄ - 22 - 36 Length of Stroke 27 Revs. per minute 105 Dia. of Screw shaft 7¹/₂ - 6⁹/₁₆ Material of screw shaft 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 One length 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 36¹/₂
 Dia. of Tunnel shaft 6⁷/₈ Dia. of Crank shaft journals 7¹²/₁₆ Dia. of Crank pin 7³/₄ Size of Crank webs 14¹/₂ x 4⁷/₈ Dia. of thrust shaft under collars 7³/₄ Dia. of screw 9¹/₂ Pitch of Screw 11 - 9 No. of Blades 4 State whether moveable No Total surface 29 sq
 No. of Feed pumps 2 Diameter of ditto 2¹/₂ Stroke 14 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2¹/₂ Stroke 14 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines Two Sizes of Pumps one 5" Cent. one 6" x 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps one 2" from slush well, one 2" from fore compartment, and ejector suction from all parts
 In Engine Room one 2" one 3" In Holds, &c. one 2" from slush well, one 2" from fore compartment, and ejector suction from all parts
 No. of Bilge Injections 1 sizes 3¹/₂ Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3"
 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 0
 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 hold suction How are they protected wood casing
 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 6.3.08 of Stern Tube 6.3.08 Screw shaft and Propeller 6.3.08
 Is the Screw Shaft Tunnel watertight No Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Phoenix Ges. Abt Holder Berg Germany
 Total Heating Surface of Boilers 1560 sq Is Forced Draft fitted No No. and Description of Boilers 1 Cyl. Multi
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 17.3.08 No. of Certificate 1637
 Can each boiler be worked separately Yes Area of fire grate in each boiler 36 sq No. and Description of Safety Valves to each boiler Two Spring Area of each valve 4.9 sq Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 13 - 6 Length 10 - 9 Material of shell plates Steel
 Thickness 1³/₂ Range of tensile strength 28 - 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.D. long. seams D.B.S.L.C. Diameter of rivet holes in long. seams 1¹/₈ Pitch of rivets 7⁷/₈ Lap of plates or width of butt straps 16³/₄
 Per-centages of strength of longitudinal joint rivets 85.8 plate 85.7 Working pressure of shell by rules 180 lbs Size of manhole in shell 16 x 12
 Size of compensating ring 28" x 31" x 1³/₂ No. and Description of Furnaces in each boiler 2 Deightons Material Steel Outside diameter 4' 2¹/₂"
 Length of plain part top — bottom — Thickness of plates crown 5¹/₈ bottom 5¹/₈ Description of longitudinal joint Welded No. of strengthening rings 0
 Working pressure of furnace by the rules 199 lbs Combustion chamber plates: Material Steel Thickness: Sides 5¹/₈ Back 3¹/₂ Top 5¹/₈ Bottom 5¹/₈
 Pitch of stays to ditto: Sides 9¹/₄ x 8 Back 9¹/₂ x 8 Top 9 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 lbs
 Material of stays Steel Diameter at smallest part 1¹/₂ Area supported by each stay 76 sq Working pressure by rules 186 lbs End plates in steam space: Material Steel Thickness 1¹/₂ Pitch of stays 18 x 17¹/₂ How are stays secured d nuts Working pressure by rules 181 lbs Material of stays Steel
 Diameter at smallest part 2¹/₁₆ Area supported by each stay 312.75 sq Working pressure by rules 206 lbs Material of Front plates at bottom Steel
 Thickness 1⁵/₁₆ Material of Lower back plate Steel Thickness 7¹/₈ Greatest pitch of stays 14¹/₂ x 8 Working pressure of plate by rules 193 lbs
 Diameter of tubes 3¹/₂ Pitch of tubes 4³/₄ x 5¹/₂ Material of tube plates Steel Thickness: Front 1⁵/₁₆ Back 1³/₁₆ Mean pitch of stays 9⁷/₈
 Pitch across wide water spaces 14¹/₂ Working pressures by rules 192 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9¹/₂ x 14 Length as per rule 36 Distance apart 9 Number and pitch of stays in each 3 - 8
 Working pressure by rules 216 lbs 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 —

Lloyd's Register Foundation
 W855-0035

VERTICAL DONKEY BOILER— Manufacturers of Steel

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 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 _____ 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 and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air, circulating, feed + bilge pump valves, and a quantity of assorted bolts nuts etc.

The foregoing is a correct description.
 F. J. Palthorpe Manufacturer.

Dates of Survey while building: During progress of work in shops - 1907 - Dec 4, 16, 30, 1908 - Jan 6, 14, 15, 16, 21, 27, 31, Feb 4, 6, 10, 13, 19, Mar 2, 6, 9, 12, 17, 19, 20, 25, 30, 31, Apr 1, 4, 27.
 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 2.3.08 Slides 2.3.08 Covers 2.3.08 Pistons 2.3.08 Rods 2.3.08
 Connecting rods 2.3.08 Crank shaft 19.2.08 Thrust shaft 19.2.08 Tunnel shafts _____ Screw shaft 19.2.08 Propeller 2.3.08
 Stern tube 2.3.08 Steam pipes tested 25.3.08 Engine and boiler seatings 12.3.08 Engines holding down bolts 1.4.08
 Completion of pumping arrangements 4.4.08 Boilers fixed 1.4.08 Engines tried under steam 4.4.08
 Main boiler safety valves adjusted 1.4.08 Thickness of adjusting washers 3/8" + 5/16"

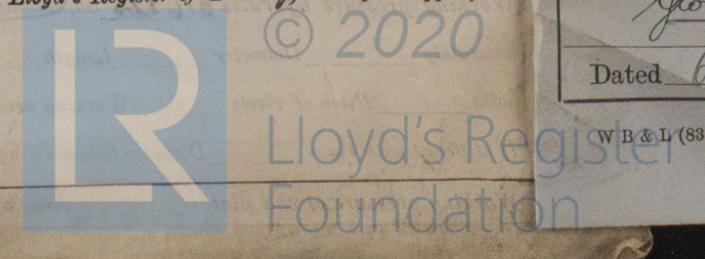
General Remarks (State quality of workmanship, opinions as to class, &c.) The engines boiler of this vessel have been constructed under special survey in accordance with the Rules of the Society, the materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines fitted & secured on board. They are now in good order, and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of ***L.M.C. 4.08** in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. *L.M.C. 4.08.

The amount of Entry Fee..	£ 1 : . : .	When applied for,
Special	£ 13 : 4 : .	15/4/1908
Donkey Boiler Fee .. .	£ : : .	When received,
Travelling Expenses (if any) £	: 2 : 9	17/5/08

James Barclay
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute THUR. 16 APR 1908
 Assigned + L.M.C. 4.08.



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Certificate (if required) to be sent to

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