

REPORT ON MACHINERY

No. 22999
TUE. 27 SEP 1910

Received at London Office

Date of writing Report 19 When handed in at Local Office 19th Sept 1910 Port of Hull
 No. in Survey held at Hull Beverley Date, First Survey Apr 22nd Last Survey 15th Sept 1910
 Reg. Book. 27 Supp on the Hull S. K. Orientales (Number of Visits 37)
 Master Built at Beverley By whom built Cook, Wilson & Gemmell Tons Gross 280 Net 119
 Engines made at Hull By whom made Messrs when made 1910
 Boilers made at Hull By whom made Charles D. Holmes & Co. Ltd when made 1910
 Registered Horse Power Owners T. Paskeomb Port belonging to Gumbly
 Nom. Horse Power as per Section 28 89.83 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 13" ~ 23" ~ 37" Length of Stroke 24" Revs. per minute 110 Dia. of Screw shaft as per rule 7.57 Material of Iron
 as fitted 7.625 screw shaft
 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 yes 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 36"
 Dia. of Tunnel shaft as per rule 6.8 Dia. of Crank shaft journals as per rule 7.16 Dia. of Crank pin 7 1/4" Size of Crank webs 1 1/2" x 4 1/2" Dia. of thrust shaft under
 collars 7/8" Dia. of screw 9-1/2" Pitch of Screw 11'-6" No. of Blades 4 State whether moveable No Total surface 30
 No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Donkey Engines One Sizes of Pumps 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 2" x one 3" Ejector In Holds, &c. One each 2" to Slush well,
 Forehold, and fore peak.
 No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 3" Ejector
 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 hold peak suction How are they protected Wood & Iron 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 8.7.10 of Stern Tube 8.7.10 Screw shaft and Propeller 8.7.10
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record S.) Manufacturers of Steel Phoenix A. G. A. H. V. of Huerde
 Total Heating Surface of Boilers 13500 Is Forced Draft fitted No No. and Description of Boilers 1 Cyl. Multi Single Ended
 Working Pressure 198 lbs Tested by hydraulic pressure to 396 lbs Date of test 19.8.10 No. of Certificate 1763
 Can each boiler be worked separately Area of fire grate in each boiler 45 sq ft No. and Description of Safety Valves to
 each boiler Two Spring Area of each valve 4.9 sq in 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 24" Mean dia. of boilers 13'-3 1/2" Length 10'-6" Material of shell plates S
 Thickness 1 3/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L. D.
 long. seams D. B. S. L. R. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8" Lap of plates or width of butt straps 16 5/8"
 Per centages of strength of longitudinal joint rivets 85. plate 85. Working pressure of shell by rules 198 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 7" x 1 3/16" No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 37 1/2"
 Length of plain part top 72" crown 3/4" Description of longitudinal joint Welded No. of strengthening rings 0
 bottom 64" thickness of plates bottom 3/4"
 Working pressure of furnace by the rules 204 lbs Combustion chamber plates: Material S Thickness: Sides 3/4" Back 23/32" Top 3/4" Bottom 3/4"
 Pitch of stays to ditto: Sides 9 1/2" x 10" Back 10" x 8" Top 9 1/2" x 10" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 198 lbs
 Material of stays S Diameter at smallest part 1 5/8" Area supported by each stay 95 sq in Working pressure by rules 198 lbs End plates in steam space:
 Material S Thickness 1 1/4" Pitch of stays 19 1/2" x 19 1/4" How are stays secured D. N. W. Working pressure by rules 198 lbs Material of stays S
 Diameter at smallest part 3 3/32" Area supported by each stay 370.56 sq in Working pressure by rules 210 lbs Material of Front plates at bottom S
 Thickness 1 1/2" Material of Lower back plate S Thickness 1 1/2" Greatest pitch of stays 15 1/2" x 17" Working pressure of plate by rules 200 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 5/8" x 4 3/4" Material of tube plates S Thickness: Front 1 1/2" Back 22/32" Mean pitch of stays 9 1/2" x 9 1/4"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 198 lbs Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 9" x 2" Length as per rule 2-9 1/2" Distance apart 9 1/2" Number and pitch of stays in each Two 10"
 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
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 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

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 _____ 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 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 and bilge pump valves, and a quantity of assorted bolts nuts etc.*

The foregoing is a correct description,
 p. pro **CHARLES D. HOLMES & Co, Ltd.** Manufacturer.

Harold Shepherdson DIRECTOR. 1910. - Apr 22. 28. May 7. 25. 31. Jun 2. 14. 17. 21. July 2. 5. 8. 12. 20. 26. 29 Aug 4
 Dates of Survey while building { During progress of work in shops - - - }
 { During erection on board vessel - - - } Aug 6. 9. 11. 15. 17. 18. 19. 23. 25. 27. 29. 31. Sep 2. 3. 5. 7. 12. 13. 14. 15
 Total No. of visits 39

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

Dates of Examination of principal parts—Cylinders 20. 7. 10 Slides 23. 8. 10 Covers 23. 8. 10 Pistons 23. 8. 10 Rods 12. 7. 10
 Connecting rods 23. 8. 10 Crank shaft 12. 7. 10 Thrust shaft 23. 8. 10 Tunnel shafts _____ Screw shaft 5. 7. 10 Propeller 5. 7. 10
 Stern tube 2. 7. 10 Steam pipes tested 2. 9. 10 Engine and boiler seatings 25. 8. 10 Engines holding down bolts 6. 9. 10
 Completion of pumping arrangements 15. 9. 10 Boilers fixed 6. 9. 10 Engines tried under steam 15. 9. 10
 Main boiler safety valves adjusted 7. 9. 10 Thickness of adjusting washers $\frac{3}{8}$ - $\frac{1}{4}$
 Material of Crank shaft *I* Identification Mark on Do. 701. J.G.D. Material of Thrust shaft *S* Identification Mark on Do. 701 J.B.
 Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts *I* Identification Marks on Do. 616 J.B.
 Material of Steam Pipes *Solid drawn Copper* Test pressure 400 lbs per sq inch

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. The materials and workmanship are sound and good. The boiler tested by hydraulic pressure, and with the engines secured on board, tested under steam, and found satisfactory. They are now in good order and safe working condition and respectfully submitted as being eligible in our opinion to be classed with the notation of L.M. 6. 9. 10. in the Register Book*

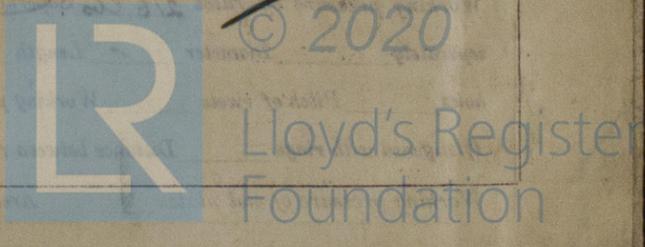
It is submitted that this vessel is eligible for THE RECORD. 4 LMC 9 10
J.M.
 27/9/10
 W.P. 198th J.P.S.

The amount of Entry Fee .. £ 1 : 9 :
 Special .. £ 13 : 4 :
 Donkey Boiler Fee .. £ - : - :
 Travelling Expenses (if any) £ - : 4 : 9

When applied for. 26. 9. 1910
 When received. 30. 9. 1910

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

Committee's Minute
 Assigned + L.M. 6. 9. 10



Certificate (if required) to be sent to _____

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