

REPORT ON MACHINERY.

No. 23432.

Received at London Office

Date of writing Report 19 When handed in at Local Office 21st Feb 1911 Port of Hull
 No. in Survey held at Selby, Hull Date, First Survey Oct 12/10 Last Survey 16th Feb 1911
 Reg. Book. 205uff on the Steel S. K. Wallington (Number of Visits 37) Gross 259 Tons Net 110
 Master Built at Selby By whom built Messrs. Buchanan & Co. when made 1911
 Engines made at } By whom made } Messrs. when made 1911
 Boilers made at } Hull By whom made } Charles D. Holmes & Co. Ltd when made 1911
 Registered Horse Power Owners Premier Steam Fishing Co. Ltd Port belonging to Grimsby
 Nom. Horse Power as per Section 28 75 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 13 $\frac{1}{2}$ " 23" 37" Length of Stroke 24" Revs. per minute 110 Dia. of Screw shaft as per rule 7.5" Material of screw shaft as fitted 7.625" hon
 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 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 36" 14" x 4 $\frac{3}{8}$ "
 Dia. of Thrust shaft as per rule 6.7" Dia. of Crank shaft journals as per rule 7.05" Dia. of Crank pin 7.25 Size of Crank webs 14" x 4 $\frac{3}{4}$ " Dia. of thrust shaft under
 collars 7.25" Dia. of screw 9" x 1 $\frac{1}{2}$ " Pitch of Screw 11" 0" No. of Blades 4 State whether moveable No Total surface 30 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 $\frac{1}{2}$ " Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 $\frac{1}{2}$ " Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 1 Sizes of Pumps 2 $\frac{3}{4}$ " x 5" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One 2 $\frac{1}{2}$ " Two 2" In Holds, &c. One 2" to slush well, One 2" to fore hold
 Ejector suction from holds, Injector to Bls only. Auxiliary Centrifugal to Condenser
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2 $\frac{1}{2}$ " &c.
 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 14. 1. 11 of Stern Tube 17. 1. 11 Screw shaft and Propeller 17. 1. 11
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Phoenix A. K. L. Ges. Abt. & H. H. H. H.
 Total Heating Surface of Boilers 1200 sq ft Is Forced Draft fitted No No. and Description of Boilers 1 Cyl. Multi. S. Endish
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 30. 1. 11 No. of Certificate 1486
 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 8" Mean dia. of boilers 13' 6" Length 10' 6" Material of shell plates S
 Thickness 1 $\frac{1}{8}$ " Range of tensile strength 28. 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L. O.
 long. seams D. A. S. J. R Diameter of rivet holes in long. seams 15 $\frac{3}{32}$ " Pitch of rivets 8" Lap of plates or width of butt straps 16 $\frac{5}{8}$ "
 Per centages of strength of longitudinal joint rivets 86.7 plate 85.5 Working pressure of shell by rules 185 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 7" x 1 $\frac{1}{8}$ " No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 37 $\frac{1}{2}$ "
 Length of plain part top 6' 0" bottom 6' 0" Thickness of plates crown 23" bottom 22" Description of longitudinal joint welded No. of strengthening rings None
 Working pressure of furnace by the rules 191 lbs Combustion chamber plates: Material S Thickness: Sides 23" Back 23" Top 3" Bottom 22"
 Pitch of stays to ditto: Sides 9 $\frac{1}{2}$ " x 10" Back 9 $\frac{1}{4}$ " x 10" Top 10" x 10 $\frac{1}{2}$ " If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 183 lbs
 Material of stays S Diameter at smallest part 1 $\frac{3}{4}$ " Area supported by each stay 119.4 sq in Working pressure by rules 181 lbs End plates in steam space:
 Material S Thickness 1 $\frac{1}{16}$ " Pitch of stays 19" x 19" How are stays secured D. n. w. Working pressure by rules 185 lbs Material of stays S
 Diameter at smallest part 6.88 Area supported by each stay 361 sq in Working pressure by rules 198 lbs Material of Front plates at bottom S
 Thickness 1 $\frac{1}{8}$ " Material of Lower back plate S Thickness 23" Greatest pitch of stays 14 $\frac{1}{2}$ " x 9 $\frac{3}{4}$ " Working pressure of plate by rules 186 lbs
 Diameter of tubes 3 $\frac{1}{2}$ " Pitch of tubes 5" x 5" Material of tube plates S Thickness: Front 2" Back 2" Mean pitch of stays 10"
 Pitch across wide water spaces 14" Working pressures by rules 285 lbs Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 8 $\frac{3}{4}$ " x 2" Length as per rule 2' 10 $\frac{3}{8}$ " Distance apart 10 $\frac{1}{2}$ " Number and pitch of stays in each 2 — 10"
 Working pressure by rules 185 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

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
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
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, nuts, one set each air circulating feed and bilge pump valves, one set check valves, 12 junk ring studs, 3 boiler tubes, 3 condenser tubes, 2 safety valve, 3 escape valve springs.

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

Charles D. Holmes DIRECTOR

Dates of Survey while building

During progress of work in shops	1909. Oct 12. 19. 25. 27. Nov 4. 9. 11. 14. 18. 19. 28. Dec 2. 6. 7. 9. 12. 15. 20.
During erection on board vessel	1911. Jan 2. 4. 6. 7. 11. 13. 14. 17. 19. 25. 30. Feb 3. 7. 8. 9. 10. 11. 14. 16.
Total No. of visits	37

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders 20. 12. 10 Slides 19. 1. 11 Covers 19. 1. 11 Pistons 25. 1. 11 Rods 4. 1. 11

Connecting rods 4. 1. 11 Crank shaft 12. 12. 10 Thrust shaft 9. 12. 10 Tunnel shafts Screw shaft 14. 1. 11 Propeller 14. 1. 11

Stern tube 14. 1. 11 Steam pipes tested 9. 2. 11 Engine and boiler seatings 17. 1. 11 Engines holding down bolts 11. 2. 11

Completion of pumping arrangements 16. 2. 11 Boilers fixed 11. 2. 11 Engines tried under steam 16. 2. 11

Main boiler safety valves adjusted 11. 2. 11 Thickness of adjusting washers 12" 10" 32 For 32 Aft

Material of Crank shaft S Identification Mark on Do. 728 JB Material of Thrust shaft S Identification Mark on Do. 728 JB

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts I Identification Marks on Do. 728 JB

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 engines and boiler of this vessel have been constructed under special survey in accordance with the Rules, the materials, and workmanship are good. The boiler tested by hydraulic pressure, and with the engines secured on board, tested under steam and found satisfactory, and are now respectfully submitted as being eligible in my opinion to be classed with the notation of *L M C 2. 11* in the Register Book

It is submitted that this vessel is eligible for THE RECORD. + LMC 2. 11.

JWD
38/2/11

JWD

The amount of Entry Fee	£ 1 : . : .	When applied for,	25. 2. 19. 11.
Special	£ 11 : 5 : .	When received,	28. 2. 19. 11.
Donkey Boiler Fee	£ : : .		
Travelling Expenses (if any)	£ : 8 : .		

Committee's Minute

Assigned

TUE. 28 FEB 1911

+ L M C 2. 11

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



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