

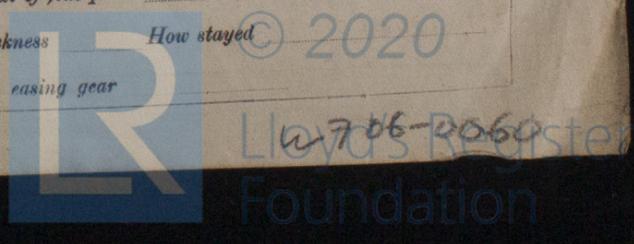
REPORT ON MACHINERY.

Received at London Office THUR. 10 SEP 1908

Date of writing Report Sept 1, 1908 When handed in at Local Office Sept 3, 1908 Port of Hull
 No. in Survey held at Hull Date, First Survey Mar 28th Last Survey Aug 27th 1908.
 Reg. Book. 1 Supp on the 1st Haven - VARONIL (Number of Visits 47) Gross 253 Tons Net 198
 Master Selby Built at Selby By whom built Cochrane & Sons When built 1908.
 Engines made at Hull By whom made C. D. Holmes & Co. when made 1908.
 Boilers made at Hull By whom made Hull when made Hull
 Registered Horse Power 69 Owners Atlas Sm Fishing Co. Ltd. Port belonging to Greeny
 Nom. Horse Power as per Section 28 69 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Two 24" Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/2 x 22 x 35 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft 7 1/4 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 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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 31
 Dia. of Tunnel shaft 6 1/4 Dia. of Crank shaft journals 6 7/8 Dia. of Crank pin 6 3/4 Size of Crank webs 17 x 15 1/2 Dia. of thrust shaft under collars 7 Dia. of screw 8-7 1/2 Pitch of Screw 11 1/8 (Main) No. of Blades 4 State whether moveable No. Total surface 28 ft.
 No. of Feed pumps 1 Diameter of ditto 2 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 1 Diameter of ditto 2 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 1 Sizes of Pumps 2 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 2-2 (Fore & Aft) In Holds, &c. 2-2 (Fore hold & stowage hold)
2" Green suction to all holds with an engine on deck.
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2" Green
 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 Hot air 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 9.6.08. of Stern Tube 9.6.08. Screw shaft and Propeller 9.6.08.
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record 3) Manufacturers of Steel Gates of Hull & Co. - Hobartson
 Total Heating Surface of Boilers 1120 ft. Is Forced Draft fitted No. No. and Description of Boilers 1 - S.E. 9' x 12' x 12'
 Working Pressure 180 lb. Tested by hydraulic pressure to 360. Date of test 14-8-08 No. of Certificate 1664.
 Can each boiler be worked separately Yes Area of fire grate in each boiler 33.2 ft. No. and Description of Safety Valves to each boiler 2 Spring loaded. Area of each valve 3.97. Pressure to which they are adjusted 185. Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7 Mean dia. of boilers 13' 0" Length 10' 0" Material of shell plates Steel
 Thickness 1 1/2" Range of tensile strength 18-32 Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams 8/8 Lap.
 long. seams 2/2 Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7 1/2" Lap of plates or width of butt straps 17 1/2"
 Per centages of strength of longitudinal joint rivets 88.2 Working pressure of shell by rules 188. Size of manhole in shell 16 x 12
 Size of compensating ring 7 x 1 1/2" No. and Description of Furnaces in each boiler 2 Holmes. Material Steel. Outside diameter 43"
 Length of plain part top 14" Thickness of plates crown 1 1/8" Description of longitudinal joint welded. No. of strengthening rings —
 bottom 1 1/8" Working pressure of furnace by the rules 198. Combustion chamber plates: Material Steel Thickness: Sides 3/8" Back 1/8" Top 3/8" Bottom 3/8"
 Pitch of stays to ditto: Sides 9 x 9 Back 9 1/2 x 8 1/2 Top 8 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 220.
 Material of stays Steel. Diameter at smallest part 1.65 Area supported by each stay 9 x 9 1/2 Working pressure by rules 220. End plates in steam space: Material Steel. Thickness 1 1/2" Pitch of stays 17 1/2 x 17 1/2 How are stays secured Welded Working pressure by rules 185. Material of stays Steel.
 Diameter at smallest part 6.33 Area supported by each stay 306 Working pressure by rules 215 Material of Front plates at bottom Steel.
 Thickness 3/8" Material of Lower back plate Steel. Thickness 1 1/8" Greatest pitch of stays 14 1/2 x 8 1/2 Working pressure of plate by rules 212
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2 x 5 Material of tube plates Steel. Thickness: Front 3/8" Back 7/8" Mean pitch of stays 9 1/2 x 10
 Pitch across wide water spaces 15 Working pressures by rules 279. Girders to Chamber tops: Material Steel. Depth and thickness of girder at centre 9 x 1 1/2" Length as per rule 22 3/8 Distance apart 8 1/2" Number and pitch of stays in each 30 8 1/2"
 Working pressure by rules 229 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 _____ 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 _____ Descri. 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 top & two bottom end connecting rods & nuts, two main bearing bolts, one set of coupling bolts & nuts, one set of feed & high pump valves, one main & one donkey feed check valve one set of air & circulating pump valves, assorted bolts & nuts etc*

The foregoing is a correct description,
Charles D. Stobber
Manufacturer.

Dates of Survey while building: During progress of work in shops— 1908.— Mar 28. 30. Apr 6. 8. 10. 13. 16. 24. 28. May 1. 2. 6. 9. 11. 12. 16. 19. 21. 23. 26. 30. Jun 3. 6. 9. 19.
During erection on board vessel — Jun 27. 29. July 2. 4. 7. 11. 13. 17. 18. 23. 25. 30. Aug 1. 7. 8. 13. 14. 20. 21. 22. 25. 27
Total No. of visits 47

Is the approved plan of main boiler forwarded herewith *RPL 20378*

Dates of Examination of principal parts—Cylinders 2.7.08. Slides 23.7.08. Covers 7.7.08. Pistons 17.7.08. Rods 27.6.08.

Connecting rods 27.6.08. Crank shaft 29.8.08. Thrust shaft 26.5.08. Tunnel shafts ✓ Screw shaft 26.5.08. Propeller 30.5.08

Stern tube 30.5.08. Steam pipes tested 20.8.08. Engine and boiler seatings 9.6.08. Engines holding down bolts 21.8.08.

Completion of pumping arrangements 27.8.08. Boilers fixed 21.8.08. Engines tried under steam 22.8.08.

Main boiler safety valves adjusted 22.8.08. Thickness of adjusting washers *F 7/8 A 5/16*

Material of Crank shaft *Steel*. Identification Mark on Do. *428.5.N.C. 13.8.08.* Material of Thrust shaft *Steel*. Identification Mark on Do. *428.5.N.C. 13.8.08.*

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. *428.5.N.C. 26.5.08.*

Material of Steam Pipes *Solid drawn copper* Test pressure *360 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery & boiler of this vessel have been constructed under Special Survey, are of good material & workmanship, & have been fitted & secured on board in accordance with the Rules. They are now in good working condition & eligible in my opinion to have record of L.M.C. 8-08 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 8.08.

JWR
10/9/08
J.R.R.
10-9-08

The amount of Entry Fee .. £ 1 : 00
Special .. £ 10 : 7
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : 8 2

When applied for, *9.9.08*

When received, *30.9.08*

John. W. Gwynne
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUES. 15 SEP 1908

Assigned

+ L.M.C. 8.08

CHIMNEY CERTIFICATE WRITTEN.



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Certificate (if required) to be sent to Mull

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