

REPORT ON MACHINERY.

No. 24287

Received at London Office

WED. OCT. 18. 1911

Date of writing Report 12/5 19 11 When handed in at Local Office 12/10 19 11 Port of Hull
 No. in Survey held at Hull Date, First Survey Mar. 17th Last Survey Oct. 3rd 19 11
 Reg. Book. 12 Supp on the S/S MARAKCHI (Number of Visits 37)
 Master By whom built Boehman & Sons Tons { Gross 153.24
 Engines made at Hull By whom made Amos & Smith Ltd. when made 5
 Boilers made at 5 By whom made 5 when made 5
 Registered Horse Power 61 Owners G. Gaior Port belonging to Tanguin
 Nom. Horse Power as per Section 28 61 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 11 1/2 - 20 - 33 Length of Stroke 24 Revs. per minute 119 Dia. of Screw shaft 7 1/2 Material of Steel
 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 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 No Length of stern bush 30
 Dia. of Tunnel shaft 6 1/2 as per rule 6 1/2 Dia. of Crank shaft journals 6 1/2 as per rule 6 1/2 Dia. of Crank pin 6 1/2 Size of Crank webs 28 - 4 1/2 Dia. of thrust shaft under
 collars 6 1/2 Dia. of screw 8 3/4 Pitch of Screw 11 - 0 No. of Blades 4 State whether moveable No Total surface 25 ft
 No. of Feed pumps one Diameter of ditto 2 1/2 Stroke 13 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps one Diameter of ditto 2 1/2 Stroke 13 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines one Sizes of Pumps 4 1/2 x 2 1/2 x 4 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 - 2 In Holds, &c. 1 - 2 (Free held)

No. of Bilge Injections one sizes 3 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 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 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 Below
 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 Under 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 28.6.11 of Stern Tube 28.6.11 Screw shaft and Propeller 28.6.11
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Phoenix & Howard
 Total Heating Surface of Boilers 9804 Is Forced Draft fitted No No. and Description of Boilers 1 S.E. Multitubular
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 30.8.11 No. of Certificate 1836
 Can each boiler be worked separately Yes Area of fire grate in each boiler 32.5 ft No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 49 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 7 1/2 Mean dia. of boilers 11.6 Length 9.6 Material of shell plates Steel
 Thickness 5/16 Range of tensile strength 29.33 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams SA 24
 long. seams SA 35 Diameter of rivet holes in long. seams 1/32 Pitch of rivets 7/4 Lap of plates or width of butt straps 15 3/8
 Per centages of strength of longitudinal joint rivets 91.4 Working pressure of shell by rules 183 Size of manhole in shell 16 x 12
 plate 88.7 No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 3.5
 Length of plain part top 5.10 1/2 Thickness of plates crown 3 Description of longitudinal joint welded No. of strengthening rings Yes
 bottom 5.4 1/2 Working pressure of furnace by the rules 188 Combustion chamber plates: Material Steel Thickness: Sides 1/8 Back 1/8 Top 1/8 Bottom 3/4
 Pitch of stays to ditto: Sides 8 3/4 x 9 1/2 Back 8 3/4 x 9 1/2 Top 8 3/4 x 9 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 196
 Material of stays Steel Diameter at smallest part 2 1/2 Area supported by each stay 83 Working pressure by rules 222 End plates in steam space:
 Material Steel Thickness 1/8 Pitch of stays 16 x 18 How are stays secured 9 + wash Working pressure by rules 222 Material of stays Steel
 Diameter at smallest part 6.10 Area supported by each stay 240 Working pressure by rules 222 Material of Front plates at bottom Steel
 Thickness 3/16 Material of Lower back plate Steel Thickness 3/8 Greatest pitch of stays 14 x 8 1/2 Working pressure of plate by rules 185
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 3/16 Back 27/32 Mean pitch of stays 9 1/2
 Pitch across wide water spaces 14 Working pressures by rules 184 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 8 1/2 x 1 1/2 Length as per rule 2.6 Distance apart 9 Number and pitch of stays in each 20 8 1/2
 Working pressure by rules 192 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked
 separately Yes Diameter 14 Length 14 Thickness of shell plates 3/16 Material Steel Description of longitudinal joint SA 24 Diam. of rivet
 holes 1/32 Pitch of rivets 7/4 Working pressure of shell by rules 184 Diameter of flue 14 Material of flue plates Steel Thickness 3/16
 If stiffened with rings Yes Distance between rings 14 Working pressure by rules 184 End plates: Thickness 3/16 How stayed Yes
 Working pressure of end plates 192 Area of safety valves to superheater 14 Are they fitted with easing gear Yes

005870-005876-0030

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 top & two bottom end connecting rods & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed & large pump valves, one main & one donkey feed check valve, one set of air & circulating pump valves, assorted bolts & nuts.*

The foregoing is a correct description, **FOR AMOS & SMITH LTD.**

Manufacturer. *W. Wilson*

Managing Director. *John W. Foyne*

Dates of Survey while building { During progress of work in shops -- } *Mar. 17, May 8, 11, 19, 31, Jun. 13, 16, 21, 24, 27, 28, July 3, 7, 14, 15, 18, 21, 24, 27.*

{ During erection on board vessel -- } *Aug. 3, 4, 8, 12, 14, 17, 30, Sept. 5, 6, 8, 12, 14, 19, 20, 22, 26, 27, Oct. 3.*

Total No. of visits *37*

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

" " " donkey " " " " ✓

Dates of Examination of principal parts—Cylinders *17. 8. 11* Slides *5. 9. 11* Covers *17. 8. 11* Pistons *5. 9. 11* Rods *28. 8. 11*

Connecting rods *28. 8. 11* Crank shaft *12. 9. 11* Thrust shaft *12. 9. 11* Tunnel shafts ✓ Screw shaft *24. 6. 11* Propeller *24. 6. 11*

Stern tube *24. 6. 11* Steam pipes tested *23. 9. 11* Engine and boiler seatings *8. 9. 11* Engines holding down bolts *22. 9. 11*

Completion of pumping arrangements *4. 10. 11* Boilers fixed *22. 9. 11* Engines tried under steam *27. 9. 11*

Main boiler safety valves adjusted *27. 9. 11* Thickness of adjusting washers *S 5/16 P 3/4*

Material of Crank shaft *Steel* Identification Mark on Do. *805 12. 9. 11 J.W.G.* Material of Thrust shaft *Steel* Identification Mark on Do. *805 12. 9. 11 J.W.G.*

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. *805 12. 9. 11 J.W.G.*

Material of Steam Pipes *Solid drawn copper* ✓ Test pressure *400 lbs* ✓

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery & trials of this vessel have been constructed under Special Survey, are of good material & workmanship & have been fitted & secured in accordance with the Rules. They are now in good working condition & are respectfully submitted as being eligible in my opinion to have record of L.M.C. 10-11 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10.11.

John W. Foyne
18/10/11

The amount of Entry Fee .. £ 1 : 0 : 0 When applied for, *11-10-11*

Special .. £ 9 : 3 : 0

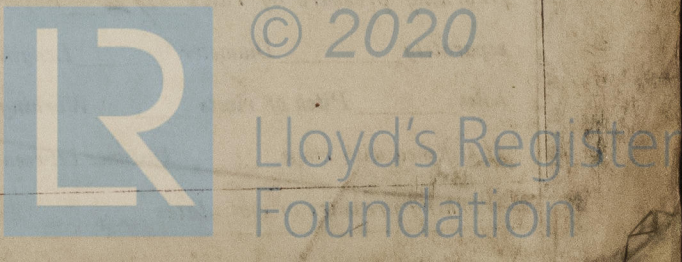
Donkey Boiler Fee .. £ : : 0

Travelling Expenses (if any) £ : 4 : 0 When received, *31. 10. 11*

Committee's Minute *FRI OCT 20 1911*

Assigned *+ L.M.C. 10.11*

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



Surveyor's Signature *William T. Wilson*