

# REPORT ON MACHINERY.

Loc. No. 69498  
1907  
SAT. 15 JUN 1907

Date of writing Report 1/6/07 When handed in at Local Office 10 Port of London  
 No. in Survey held at Colchester & Yarmouth Date, First Survey Feb'y Last Survey May 30 1907  
 Reg. Book. 135 on the Se. 16 City of Glasgow (Number of Visits 11+)  
 Master Selby Built at Selby By whom built Bochane & Sons Tons { Gross 88 Net 14  
 Engines made at Colchester By whom made A. G. Humphreys & Co When built 1907-5  
 Boilers made at Stockton By whom made Riley Bros Ltd when made 1907  
 Registered Horse Power \_\_\_\_\_ Owners London Petroleum & Coal Port belonging to Peterhead  
 Tom. Horse Power as per Section 28 35 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

GINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders two No. of Cranks two  
 Dia. of Cylinders 11" & 24" Length of Stroke 16" Revs. per minute 150 Dia. of Screw shaft 5.42" Material of steel  
 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  
 the propeller boss Yes If the liner is in more than one length are the joints 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 lapped Length of stern bush 1'-10"  
 Dia. of Tunnel shaft 4.78" Dia. of Crank shaft journals 5.02" Dia. of Crank pin 5.14" Size of Crank webs 3.14" x 7" Dia. of thrust shaft under  
 bars 5.14" Dia. of screw 6'-0" Pitch of Screw 8'-0" No. of Blades 4 State whether moveable no Total surface 16'  
 of Feed pumps one Diameter of ditto 2" Stroke F" Can one be overhauled while the other is at work ✓  
 of Bilge pumps one Diameter of ditto 2" Stroke F" Can one be overhauled while the other is at work ✓  
 of Donkey Engines One Sizes of Pumps 6" Steam Ch. 2 1/4" Feed pump No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room Three 2" One 2 1/2" walls pump In Holds, &c. One 2"  
 of Bilge Injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2"  
 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 None  
 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 awash  
 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  
 How are they protected None  
 All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes  
 of examination of completion of fitting of Sea Connections 26.4.07 of Stern Tube 26.4.07 Screw shaft and Propeller 26.4.07  
 Screw Shaft Tunnel watertight None Is it fitted with a watertight door — worked from —

ERS, &c.—(Letter for record \_\_\_\_\_) Manufacturers of Steel \_\_\_\_\_  
 Heating Surface of Boilers \_\_\_\_\_ Is Forced Draft fitted \_\_\_\_\_ No. and Description of Boilers See Separate Report.  
 Working Pressure 140 lbs. Tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_  
 Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler \_\_\_\_\_ No. and Description of Safety Valves to \_\_\_\_\_  
 Diameter of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear. \_\_\_\_\_  
 Minimum distance between boilers or uptakes and bunkers or woodwork \_\_\_\_\_ Mean dia. of boilers \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_  
 Range of tensile strength \_\_\_\_\_ Are the shell plates welded or flanged \_\_\_\_\_ Descrip. of riveting: cir. seams \_\_\_\_\_  
 Diameter of rivet holes in long. seams \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plates or width of butt straps \_\_\_\_\_  
 Working pressure of shell by rules \_\_\_\_\_ Size of manhole in shell \_\_\_\_\_  
 No. and Description of Furnaces in each boiler \_\_\_\_\_ Material \_\_\_\_\_ Outside diameter \_\_\_\_\_  
 Thickness of plates \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ No. of strengthening rings \_\_\_\_\_  
 Working pressure of furnace by the rules \_\_\_\_\_ Combustion chamber plates: Material \_\_\_\_\_ Thickness: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_  
 If stays are fitted with nuts or riveted heads \_\_\_\_\_ Working pressure by rules \_\_\_\_\_  
 Diameter at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates in steam space: \_\_\_\_\_  
 Thickness \_\_\_\_\_ Pitch of stays \_\_\_\_\_ How are stays secured \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of stays \_\_\_\_\_  
 Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of Front plates at bottom \_\_\_\_\_  
 Thickness \_\_\_\_\_ Greatest pitch of stays \_\_\_\_\_ Working pressure of plate by rules \_\_\_\_\_  
 Pitch of tubes \_\_\_\_\_ Material of tube plates \_\_\_\_\_ Thickness: Front \_\_\_\_\_ Back \_\_\_\_\_ Mean pitch of stays \_\_\_\_\_  
 Working pressures by rules \_\_\_\_\_ Girders to Chamber tops: Material \_\_\_\_\_ Depth and \_\_\_\_\_  
 Length as per rule \_\_\_\_\_ Distance apart \_\_\_\_\_ Number and pitch of stays in each \_\_\_\_\_  
 Superheater or Steam chest; how connected to boiler \_\_\_\_\_ Can the superheater be shut off and the boiler worked \_\_\_\_\_  
 Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet \_\_\_\_\_  
 Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_  
 Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_  
 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 \_\_\_\_\_ 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*  
 The foregoing is a correct description, **A. G. MUMFORD, LIMITED.**

Manufacturer. *A. G. Mumford* Director.

Dates of Survey while building { During progress of work in shops - - 1907 Feb 7. Mar 7. 20. Apr 10. 15. 17. 18. 19. May 2. 13. 30.  
 { During erection on board vessel - - Hull - 1907. Apr 19. 26. 30. May 7. 22. 23. 28. 30. 31. Jun. 5. 6. 10. 13.  
 Total No. of visits (11) 13 = 24. Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders *13.5.07* Slides *30.5.07* Covers *13.5.07* Pistons *30.5.07* Rods *13.5.07*  
 Connecting rods *13.5.07* Crank shaft *13.5.07* Thrust shaft *13.5.07* Tunnel shafts *18.4.07* Screw shaft *18.4.07* Propeller *18.4.07*  
 Stern tube *18.4.07* Steam pipes tested *5.6.07* Engine and boiler seatings *8.5.07* Engines holding down bolts *6.6.07*  
 Completion of pumping arrangements *13.6.07* Boilers fixed *6.6.07* Engines tried under steam *10.6.07*  
 Main boiler safety valves adjusted *10.6.07* Thickness of adjusting washers  $\frac{5}{16}$   $\frac{5}{16}$   
 Material of Crank shaft *Steel* Identification Mark on Do. *386 F.L.S.* Material of Thrust shaft *Steel* Identification Mark on Do. *386 F.L.S.*  
 Material of Tunnel shafts *Steel* Identification Marks on Do. *42 F.L.S.* Material of Screw shafts *Steel* Identification Marks on Do. *40 F.L.S.*  
 Material of Steam Pipes *Solid drawn Copper* Test pressure *280 lbs per sq inch*

General Remarks (State quality of workmanship, opinions as to class, &c. *These engines have been built under special survey & in accordance with the rules, (the shafting was made by Habtten of Portsmouth). The engines have been forwarded to Hull to be fitted on board Goshal B (No 2099).*

*These engines have been fitted on board, tested under steam, and found satisfactory, and 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  $\frac{1}{2}$  L.M.C. 6.07 in the Register Book, when the spare coupling bolts are put on board. The Aberdeen Sur. advised as per copy of letter attached.*

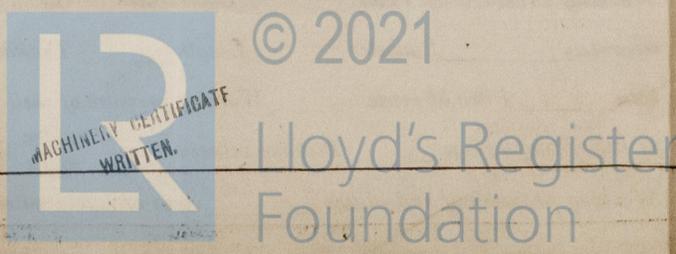
*It is submitted that this vessel WILL BE eligible for the record.  $\frac{1}{2}$  L.M.C. 6.07 when the spare gear has been completed.*

The amount of Entry Fee. . . £ 0 : : : When applied for. *5/6/07*  
 Special . . . . . £ 2 : 13/4 : : : *1907*  
 Donkey Boiler Fee . . . . . £ 2 : 18 : : : *14/6/07*  
 Travelling Expenses (if any) £ 1 : 12 : : : *5/5-10/07*

*Frank A. Sturgeon*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRI, 2 AUG 1907*

Assigned *See Minute on 11/2/07 on Abn Rpt 9213*



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.