

REPORT ON MACHINERY.

No. 69498
1907
SAT. 15 JUN 1907

Date of writing Report 11/6/07 When handed in at Local Office 10 Port of London
No. in Survey held at Bolchester & Yarmouth Date, First Survey Feb'y Last Survey May 30 1907
Reg. Book. 135 on the Se. H. City of Glasgow (Crabtree No 3443)
Master Selby Built at Selby By whom built Bochrange Sons Tons { Gross 88
Engines made at Bolchester By whom made A. G. Humphreys Ltd Net 14
Boilers made at Stockton By whom made Riley Bros Ltd When built 1907-5
Registered Horse Power 35 Owners London & Peterhead S & Co 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
are fitted, is the shaft lapped or protected between the liners lapped Length of stern bush 1'-10"
Dia. of Tunnel shaft 4.78" as per rule 4.25/32" Dia. of Crank shaft journals 5.02" as per rule 5.14" 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" wall 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
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
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
pipes are carried through the bunkers None How are they protected —
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 —
Each boiler be worked separately — Area of fire grate in each boiler — No. and Description of Safety Valves to —
Boiler — Area of each valve — Pressure to which they are adjusted — Are they fitted with easing gear. —
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 —
Stages of strength of longitudinal joint — Working pressure of shell by rules — Size of manhole in shell —
Compensating ring — No. and Description of Furnaces in each boiler — Material — Outside diameter —
of plain part — 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 —
Stays to ditto: Sides — Back — Top — If stays are fitted with nuts or riveted heads — Working pressure by rules —
of stays — 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 —
at smallest part — Area supported by each stay — Working pressure by rules — Material of Front plates at bottom —
Material of Lower back plate — Thickness — Greatest pitch of stays — Working pressure of plate by rules —
of tubes — Pitch of tubes — Material of tube plates — Thickness: Front — Back — Mean pitch of stays —
Cross wide water spaces — Working pressures by rules — Girders to Chamber tops: Material — Depth and —
of girder at centre — Length as per rule — Distance apart — Number and pitch of stays in each —
pressure by rules — 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 —
Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —
with rings — Distance between rings — Working pressure by rules — End plates: Thickness — How stayed —
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 _____ 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 5-6-04 Engine and boiler seatings 8-5-04 Engines holding down bolts 6-6-04
Completion of pumping arrangements 13-6-04 Boilers fixed 6-6-04 Engines tried under steam 10-6-04
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 FLS* Material of Thrust shaft *Steel* Identification Mark on Do. *386 FLS*
Material of Tunnel shafts *Steel* Identification Marks on Do. *42 FLS* Material of Screw shafts *Steel* Identification Marks on Do. *42 FLS*
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 1099.*

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.

James Barclay

It is submitted that this vessel WILL BE eligible for the record. 4 L.M.C. 6-07 when the spare gear has been completed.

The amount of Entry Fee. £ _____
Special £ *2 13/4*
Donkey Boiler Fee *Hull* £ *2 18*
Travelling Expenses (if any) £ *1 12*

When applied for.

5/6/07

When received.

14/6/07

5/5-10/07

23-11-07

Frank A. Stinson

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

Committee's Minute *FRI. 2 AUG 1907*

Assigned

See Minute on 14/6/07

on Abn Rpt

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