

REPORT ON MACHINERY

No. 69867

Received at London Office

Date of writing Report 4/7/07 19 19 When handed in at Local Office 19 Port of London
No. in Survey held at Colchester & Yarmouth Date, First Survey Feb 4 Last Survey June 17 1904
Reg. Book. 947 on the Steel S.S. City of Belfast (Number of Visits 3) Tons Gross 313 Net 280
Master Selby Built at Selby By whom built Bochran & Sons When built 1907
Engines made at Colchester By whom made A. G. Mumford & Co. when made 1907
Boilers made at Stockton By whom made Riley Bros Ltd when made 1907
Registered Horse Power 35 Owners London & Peterhead S. F. Co. Port belonging to Peterhead
Nom. Horse Power as per Section 28 35 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &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
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 ✓ 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 ✓ Length of stern bush 1'-10"
Dia. of Tunnel shaft 4.78" Dia. of Crank shaft journals 5.02" Dia. of Crank pin 5 1/4" Size of Crank webs 3 1/4" x 7" Dia. of thrust shaft under
collars 5 1/4" Dia. of screw 6-0 Pitch of Screw 8'-0 No. of Blades 4 State whether moveable No Total surface 16
No. of Feed pumps one Diameter of ditto 2" Stroke 8" Can one be overhauled while the other is at work ✓
No. of Bilge pumps one Diameter of ditto 2" Stroke 8" Can one be overhauled while the other is at work ✓
No. of Donkey Engines one Sizes of Pumps 6" Steam Cyl. & 6" Stroke No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Three 2" & one 2 1/2" 3" water pump In Holds, &c. One 2"

No. 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"
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 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
What pipes are carried through the bunkers None How are they protected Yes
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 30.4.07 of Stern Tube 30.4.07 Screw shaft and Propeller 19.4.07, 30.4.07
Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record —) Manufacturers of Steel —

Total 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
each boiler — Area of each valve — Pressure to which they are adjusted — Are they fitted with easing gear —
Smallest distance between boilers or uptakes and bunkers or woodwork — Mean dia. of boilers — Length — Material of shell plates —
Thickness — Range of tensile strength — Are the shell plates welded or flanged — Descrip. of riveting: cir. seams —
long, seams — Diameter of rivet holes in long, seams — Pitch of rivets — Lap of plates or width of butt straps —
Per centages of strength of longitudinal joint — Working pressure of shell by rules — Size of manhole in shell —
Size of compensating ring — No. and Description of Furnaces in each boiler — Material — Outside diameter —
Length 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 —
Pitch of stays to ditto: Sides — Back — Top — If stays are fitted with nuts or riveted heads — Working pressure by rules —
Material of stays — Diameter at smallest part — Area supported by each stay — Working pressure by rules — End plates in steam space: —
Material — Thickness — Pitch of stays — How are stays secured — Working pressure by rules — Material of stays —
Diameter at smallest part — Area supported by each stay — Working pressure by rules — Material of Front plates at bottom —
Thickness — Material of Lower back plate — Thickness — Greatest pitch of stays — Working pressure of plate by rules —
Diameter of tubes — Pitch of tubes — Material of tube plates — Thickness: Front — Back — Mean pitch of stays —
Pitch across wide water spaces — Working pressures by rules — Girders to Chamber tops: Material — Depth and
thickness of girder at centre — Length as per rule — Distance apart — Number and pitch of stays in each —
Working pressure by rules — 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 —

W1412-0127

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 end bilge pump valves, and a quantity of assorted bolts, nuts etc.

The foregoing is a correct description,

As Manufacturer.

Dates of Survey while building { During progress of work in shops - 1904 Feb 4 May 20. Apr 15. 17. 19. May 2. 13. 30. During erection on board vessel - Hull - Apr 26. 30. May 7. 28. 30. 31. Jun 6. 10. 24. Jul 2. Total No. of visits 11 + 10 = 21 -

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 17.6.07 Slides 17.6.07 Covers 17.6.07 Pistons 17.6.07 Rods 30.5.07 Connecting rods 30.5.07 Crank shaft 17.6.07 Thrust shaft 17.6.07 Tunnel shafts 18.4.07 Screw shaft 19.4.07 Propeller 19.4.07 Stern tube 19.4.07 Steam pipes tested 10.6.07 Engine and boiler seatings 8.5.07 Engines holding down bolts 2.7.07 Completion of pumping arrangements 2.7.07 Boilers fixed 2.7.07 Engines tried under steam 2.7.07 Main boiler safety valves adjusted 2.7.07 Thickness of adjusting washers 5/16 7/16

Material of Crank shaft steel Identification Mark on Do. 387 FLS Material of Thrust shaft steel Identification Mark on Do. 387 FLS

Material of Tunnel shafts steel Identification Marks on Do. 42 FLS Material of Screw shafts steel Identification Marks on Do. 39 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 Crabtree of Yarmouth. The engines have been forwarded to Hull to be fitted on board Good I. B. 607900. B. In my opinion they will be eligible for the record + L.M.C. with date when completed.

These engines have been fitted on board, tested under steam found satisfactory, and they are now eligible in my opinion to be classed with the notation of FLM.C. 7.07 in the Register Book.

James Barclay.
6.7.07.

It is submitted that this vessel is eligible for THE RECORD. FLM.C. 7.07

The amount of Entry Fee.. £ 1 : : When applied for, 5/7/07

Special .. £ 2 : 18/4 : Hull 10/7/07

Donkey Boiler Fee Hull £ 2 : 18/8 : When received, 10/7/07

Travelling Expenses (if any) £ 1 : 7 : 10/7/07

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

Committee's Minute

FRI. 12 JUL 1907

MACHINERY CERTIFICATE WRITTEN.

Assigned



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