

REPORT ON MACHINERY.

No. 69704
MON. MAY 13 1907
1903

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of London

WED. 29 MAY 1907

No. in Survey held at Luton Date, First Survey Feb Last Survey Apr 29 1907
Reg. Book. 3 Supp on the Engines No 1672 for S.S. City of London (Number of Visits 19 Gross 88)

Master Built at Selby By whom built Cochrane & Sons Tons Net 14
Engines made at Luton By whom made The Marshall & West Hydraulic Eng Co when made 1907

Boilers made at Luton By whom made R. H. Stephenson & Co when made 1907

Registered Horse Power 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 Comp. Invert. Surface bonding No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 11" - 24" Length of Stroke 16" Revs. per minute 150 Dia. of Screw shaft as per rule 5.367" Material of screw shaft as fitted 5.1/2" 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 Yes Length of stern bush 1 - 10"

Dia. of Tunnel shaft as per rule 4.76" Dia. of Crank shaft journals as per rule 4.94" Dia. of Crank pin 5.1/4" Size of Crank web 3.1/4" x 2.1/8" Dia. of thrust shaft under

collars 5.1/4" Dia. of screw 6 - 0" Pitch of Screw 7 - 9" No. of Blades 4 State whether moveable No Total surface 15.5 sq ft

No. of Feed pumps One Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work Yes

No. of Bilge pumps One Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work Yes

No. of Donkey Engines One Sizes of Pumps 6" Steam Cyl. x 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" + Ejector suction

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 0

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 just ahead

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

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 30.3.07 of Stern Tube 30.3.07 Screw shaft and Propeller 30.3.07

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 750 sq ft Is Forced Draft fitted No. and Description of Boilers

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 rivets 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 top Thickness of plates crown 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

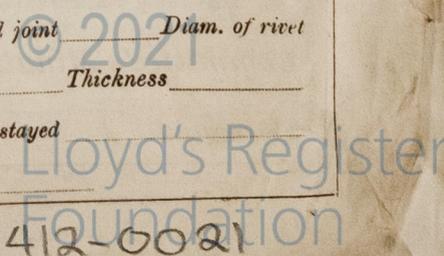
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

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



W1412 0021

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 Sajo. in _____

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 bolts and nuts, two main bearing bolts and nuts, one set of coupling bolts and nuts, one set each air circulating, feed bilge pump valves, and a quantity of assorted bolts nuts etc.

The foregoing is a correct description,

ENGINEERING COY. LTD.
Wm. E. Blackie
WORKS MANAGER & DIRECTOR.

Manufacturer.

Dates of Survey while building

During progress of work in shops - -	16 th March - 13. 20.	Apr 5. 16. 26. 30
During erection on board vessel - -	11 th & 26. 30. Apr 26. 30.	May 8. 15. 17. 22. 23. 25
Total No. of visits	18	

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 20.3.07 Slides 20.3.07 Covers 20.3.07 Pistons 20.3.07 Rods 16.4.07

Connecting rods 16.4.07 Crank shaft 5.4.07 Thrust shaft Tunnel shafts 20.3.07 Screw shaft 13.3.07 Propeller 13.3.07

Stern tube 13.3.07 Steam pipes tested 15.5.07 Engine and boiler seatings 30.3.07 Engines holding down bolts 17.5.07

Completion of pumping arrangements 25.5.07 Boilers fixed 17.5.07 Engines tried under steam 25.5.07

Main boiler safety valves adjusted 23.5.07 Thickness of adjusting washers 9/32" 7/16 S.

Material of Crank shaft Steel Identification Mark on Do. Nº 2 Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Steel Identification Marks on Do. Nº 398 Material of Screw shafts Steel Identification Marks on Do. Nº 398

Material of Steam Pipes Solid drawn Copper Test pressure 280 lbs □

General Remarks (State quality of workmanship, opinions as to class, &c. These Engines have been constructed under special survey, the material has been tested & the workmanship is good, they have been sent to Selby for the purpose of fitting on board.

The above machinery has been fitted on board, tested under steam, and found satisfactory, and is eligible in my opinion to be classed with the notation of *L.M.B. 5.07 in Register Book, when safety valve easing gear is fitted

James Barclay

Certificate (if required) to be sent to the Committee's Minute.

The amount of Entry Fee.. £ 1 : 0 : 0 When applied for, _____

Special _____ £ 8 : 0 : 0 _____ 13/5/07

Donkey Boiler Fee _____ £ 19 : 0 : 0 _____ 20/5/07

Travelling Expenses (if any) £ _____ : 19 : 0 _____ 22/5/07

Committee's Minute FRI 14 JUN 1907

Assigned + L.M.B. 5.07

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

Lloyd's Register Foundation

MACHINERY CERTIFICATE WRITTEN.