

# REPORT ON MACHINERY.

No. 69703  
MON. MAY 13 1907

Date of writing Report 10 When handed in at Local Office 10 Port of London  
 No. in Survey held at Luton Date, First Survey Feb 4 Last Survey April 26 1907  
 Reg. Book. 112 on the Dynis 9° 1672, for S. S. City of Edinburgh (Number of Visits 7 Gross 88 Net 74)  
 Master By whom built Selby By whom built Lockram & Son When built 1904  
 Engines made at Luton By whom made The Vauxhall & Co. Hydraulic Eng Co when made 1907  
 Boilers made at Stratford By whom made Riley & Co. R. Stephenson & Co when made 1907  
 Registered Horse Power 35 Owners London & Peterhead S. S. 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 Condensing 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 5.36" 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  
 Is 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 4.71" Dia. of Crank shaft journals 4.94" Dia. of Crank pin 5.74" Size of Crank webs 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. 3 1/4" feed pump 3" water pump No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room Three 2" & one 2 1/2" In Holds, &c. one 2" ejector suction  
 No. of Bilge Injections one 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 wash  
 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 2) Manufacturers of Steel —  
 Total Heating Surface of Boilers 750 sq ft Is Forced Draft fitted — No. and Description of Boilers —  
 Working Pressure 140 lb 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 —  
 Percentages 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 —  
 Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —  
 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 —

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 nuts, one set coupling bolts + nuts, One set each air circulating feed and bilge pump valves, and a quantity of assorted bolts nuts etc

The foregoing is a correct description,

Manufacturer. *W. VAUXHALL & CO. LTD. ENGINEERS & BOILER MAKERS*

Dates of Survey while building { During progress of work in shops - - } *Feb + March 13. 30 Apr 5. 16 26*

{ During erection on board vessel - - } *Mar 26. 30 Apr 26. 30 May 7. 15. 17. 22. 23. 25*

Total No. of visits *17* Is the approved plan of main boiler forwarded herewith *Yes*

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 *1/4 f 1/4 f*

Material of Crank shaft *Steel* Identification Mark on Do. *Nº 1* Material of Thrust shaft *✓* Identification Mark on Do. *✓*

Material of Tunnel shafts *Steel* Identification Marks on Do. *Nº 391-393* Material of Screw shafts *Steel* Identification Marks on Do. *Nº 394-398*

Material of Steam Pipes *Solid drawn Copper* Test pressure *220 lbs. D*

General Remarks (State quality of workmanship, opinions as to class, &c. *The above machinery has 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.C. 5.07 in Register Book, when safety valve easing gear is fitted.*

*James Barclay*

The amount of Entry Fee..	£ 1 : 0 : 0	When applied for.	
Special <i>donkey</i> Fee	£ 8 : 0 : 0	When received,	<i>13/5/07</i>
Donkey Boiler Fee	£ 13 : 0 : 0		<i>28/5/07</i>
Travelling Expenses (if any) £	1 : 19 : 7		<i>19/7/07</i>

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

*£4.13.4 paid 1.6.07 JMB*

Committee's Minute  
Assigned



Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.

Date of work  
No. in Reg. Book  
112  
Tonnage  
Registered Horse Power  
No. of Main Boilers  
No. of Donkey Steam Presses in Main Boilers  
in Donkey  
Last Survey  
Particulars  
Periodical Cause of R account of besides dates and  
In damage declined  
Did the Surveyor  
Do.  
If this was  
And what part  
Also what part  
Surveyor  
Did the Surveyor  
Has screw  
Has shaft  
Is the shaft  
State the  
If the Surveyor  
General Remarks  
(State quality of workmanship, opinions as to class, &c.)  
be  
the  
Surveyor  
Special Details  
Travelling Expenses  
Comm  
Assign