

REPORT ON MACHINERY

No. 69573
JES. 14 MAY 1907

Port of London

Received at London Office 6/4/07

No. in Survey held at Yarmouth Date, first Survey Jan 23 Last Survey Mar 21 1907
 Reg. Book. 69446 on the Sea Lord Claude Hamilton (Number of Visits 6+10 Hull Apr 25 1907)
 Master Selby Built at Selby By whom built Cochrane Sons When built 1907
 Engines made at Yarmouth By whom made Cochrane & Co. No 337 when made 1907-3
 Boilers made at Stockton By whom made Riley Bros when made _____
 Registered Horse Power _____ Owners Lowestoft F. F. Co. Ltd Port belonging to Lowestoft
 Nom. Horse Power as per Section 28 32 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" x 24" Length of Stroke 16" Revs. per minute 104 Dia. of Screw shaft 5 1/2" Material of screw shaft 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 ✓ 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 two liners lapped Length of stern bush 1'-10"
 Dia. of Tunnel shaft 4.89" Dia. of Crank shaft journals 4.9" Dia. of Crank pin 5" Size of Crank webs 3 1/2 x 7 Dia. of thrust shaft under
 collars 5" Dia. of screw 6'-0" Pitch of Screw 7'-9" No. of Blades 3 State whether moveable no Total surface 16 1/2
 No. of Feed pumps one Diameter of ditto 2 1/8" Stroke 8" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps one Diameter of ditto 2 1/8" Stroke 8" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines One Sizes of Pumps 6" steam cyl. feed pump 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"

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 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 ✓
 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 15.3.07 of Stern Tube 15.3.07 Screw shaft and Propeller 15.3.07
 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 640 Is Forced Draft fitted no No. and Description of Boilers See Separate Report
 Working Pressure 140 lbs Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate 1179
 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 _____

It is Report also sent on the mast of the ship

VERTICAL DONKEY BOILER—

Manufactured of Steel

No. *1892* Description *Vertical Donkey Boiler*

Made at *London* By whom made *James Barclay*

Working pressure *100 lbs* tested by hydraulic pressure to *150 lbs* Date of test *1907 Jan 23* No. of Certificate *1892* Fire grate area *10 sq ft* Where fixed *On board vessel*

Valves *2* No. of Safety Valves *2* Area of each *10 sq in* Pressure to which they are adjusted *100 lbs* Date of adjustment *1907 Jan 23*

If fitted with casing gear *No* If steam from main boilers can enter the donkey boiler *No*

Material of shell plates *Steel* Thickness *1/2 in* Range of tensile strength *30 tons* Dia. of donkey boiler *18 in* Length *42 in*

Dia. of rivet holes *1/4 in* Whether punched or drilled *Drilled* Pitch of rivets *2 in* Descrip. of riveting long. seams *Double*

Working pressure of shell by rules *100 lbs* Thickness of shell crown plates *1/2 in* Radius of do. *18 in* No. of stays to do. *2* Dia. of stays *1/2 in*

Diameter of furnace Top *18 in* Bottom *18 in* Length of furnace *42 in* Thickness of furnace plates *1/2 in* Description of joint *Double*

Working pressure of furnace by rules *100 lbs* Thickness of furnace crown plates *1/2 in* Stayed by *2 stays*

Diameter of uptake *18 in* Thickness of uptake plates *1/2 in* Thickness of water tubes *1/2 in* Dates of survey *1907 Jan 23*

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, a quantity of assorted bolts nuts*

The foregoing is a correct description,

Manufacturer. *James Barclay*

Dates of Survey while building

During progress of work in shops	<i>1907 Jan 23, Feb 8, 14, 18, 27, Mar 31</i>
During erection on board vessel	<i>Hull: - Mar. 12, 15, 26, 30 Apr 9, 10, 11, 19, 22, 25</i>
Total No. of visits	<i>(6 London) (10 Hull)</i>

Is the approved plan of main boiler forwarded herewith *No*

Dates of Examination of principal parts—Cylinders *18.2.07* Slides *18.2.07* Covers *18.2.07* Pistons *14.3.07* Rods *14.3.07*

Connecting rods *14.3.07* Crank shaft *14.3.07* Thrust shaft *14.3.07* Tunnel shafts *28.2.07* Screw shaft *28.2.07* Propeller *28.2.07*

Stern tube *18.2.07* Steam pipes tested *10.4.07* Engine and boiler seatings *15.3.07* Engines holding down bolts *22.4.07*

Completion of pumping arrangements *25.4.07* Boilers fixed *22.4.07* Engines tried under steam *25.4.07*

Main boiler safety valves adjusted *25.4.07* Thickness of adjusting washers *1/2 in 1/2 in*

Material of Crank shaft *Steel* Identification Mark on Do. *1841* Material of Thrust shaft *Steel* Identification Mark on Do. *1841*

Material of Tunnel shafts *Steel* Identification Marks on Do. *374 F.L.* Material of Screw shafts *Steel* Identification Marks on Do. *371 F.L.S*

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 & in accordance with the rules, the workmanship is good. They have been forwarded to Lloyds for fitting on board, where the H.P. piston valve will be examined & the spare gear supplied. In my opinion the vessel will be eligible for the record + L.M.C. with date when the survey is completed. The high pressure piston valve, and spare gear have been examined and found in order. The engines fitted on board, tested under steam and found satisfactory, and they are now eligible in my opinion, to be classed with the notation of L.M.C. 4.07 in the Register Book.*

James Barclay
1.5.07

It is submitted that this vessel is eligible for THE RECORD. **L.M.C. 4.07.**

The amount of Entry Fee... £ *1* When applied for *1907*

Special... £ *2.13.0* When received *1907*

Donkey Boiler Fee *Hull* £ *16.5* When received *1907*

Travelling Expenses (if any) £ *3* When received *1907*

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

Committee's Minute

Assigned

MACHINERY CERTIFICATE WRITTEN.



FLAT P (If Bar GARBOA State a thickness way of Bott) DOUB Length and thickness POOP RAIS BRID FOR LENC mant Plate Has FRA REV L B T R S Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

Rpt No. Reg. Mast Engi Boile Regi MU (Let) Boil No. safe Are Smat Mat Des Loo boi Des pla Top smc Pit Ar Lo Pit wa gir W sep ho If W M tes No en str L Re T pl T of b