

# REPORT ON MACHINERY.

No. 20,563

Received at London Office

SEP 30 1908

Date of writing Report 18.9.08 When handed in at Local Office 21.9.08 Port of Hull

No. in Survey held at Goole & Hull Date, First Survey June 3<sup>rd</sup> Last Survey Sep. 15<sup>th</sup> 1908  
 Reg. Book. 8 Supp. on the Steel Se. K. Delta. A. (Number of Visits 22)

Master Goole Built at Goole By whom built Goole S & R. Co. Ltd. Tons Gross 250  
112 Net

Engines made at Hull By whom made Earle's S & E. Co. Ltd when made 1908

Boilers made at " By whom made do when made 1908

Registered Horse Power 73 Owners Societe Anonyme Delta Port belonging to Ostend.

Nom. Horse Power as per Section 28 73.57 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12 1/2" - 21" - 34" Length of Stroke 24" Revs. per minute 108 Dia. of Screw shaft 7 1/4" Material of screw shaft Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes 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 one length 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 30 1/2"

Dia. of Tunnel shaft 6 3/4" as per rule 6.37 Dia. of Crank shaft journals 6 3/4" as per rule 6.69 Dia. of Crank pin 6 3/4" Size of Crank webs 13 1/2" x 4 1/2" Dia. of thrust shaft under collars 6 3/4" Dia. of screw 8-9 Pitch of Screw 11-6" No. of Blades 4 State whether moveable No Total surface 27 sq ft

No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 1 Sizes of Pumps 5" x 2 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room One 2" One 2 1/2" In Holds, &c. One 2" to aft. S. Well, one 2" to fore slush well, One 2" to fish room, two 2" to tank, a ejector suction from all parts.

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2"

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 None

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 above

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 hold suction How are they protected wood casing

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 27.8.08 of Stern Tube 27.8.08 Screw shaft and Propeller 27.8.08

Is the Screw Shaft Tunnel watertight No Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record 6) Manufacturers of Steel Messrs Beardmore Son

Total Heating Surface of Boilers 1300 sq ft Is Forced Draft fitted No No. and Description of Boilers One cyl. Multi

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 15.8.08 No. of Certificate 1665

Can each boiler be worked separately ✓ Area of fire grate in each boiler 32.5 sq ft No. and Description of Safety Valves to each boiler Two Spring Area of each valve 3.98 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12" Int. dia. of boilers 12-6" Length 10-3" Material of shell plates Steel

Thickness 1 1/8" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.D. long. seams D.S.S.Y.R. Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7" Lap of plates or width of butt straps 15 3/4"

Per centages of strength of longitudinal joint rivets 89 Working pressure of shell by rules 186 lbs Size of manhole in shell 16" x 12" plate 84.8

Size of compensating ring 31" x 28" x 1 1/8" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 41 1/2"

Length of plain part top 6-3" Thickness of plates crown 49" Description of longitudinal joint Welded No. of strengthening rings 0 bottom 64"

Working pressure of furnace by the rules 184 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 5/8" Top 5/8" Bottom 1/2"

Pitch of stays to ditto: Sides 8 1/2" x 8 1/2" Back 8" x 8 1/4" Top 8 1/2" x 8 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 187 lbs

Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 70 sq in Working pressure by rules 200 lbs End plates in steam space: Material Steel Thickness 1 1/8" Pitch of stays 17" x 17" How are stays secured D. 7 washers 6 1/2" x 3/4" Working pressure by rules 185 lbs Material of stays Steel

Diameter at smallest part 2 3/16" Area supported by each stay 289 sq in Working pressure by rules 224 lbs Material of Front plates at bottom Steel

Thickness 1 5/16" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14 1/2" x 8 3/4" Working pressure of plate by rules 185 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1 5/16" Back 7/8" Mean pitch of stays 9 1/8"

Pitch across wide water spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9" x 13 1/4" Length as per rule 2-11 1/2" Distance apart 8 1/2" Number and pitch of stays in each 3 - 8 1/2"

Working pressure by rules 188 lbs 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

**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No.	Description		When made	Where fixed
Made at	By whom made			
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area
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
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, feed and bilge pump valves, and a quantity assorted bolts nuts etc.

The foregoing is a correct description.

*F. J. Palethorpe* Manufacturer.

SECRETARY: 1908.—Jan 3. 25. July 4. 9. 16. 20. 25. 30. 31 Aug 15. 21. 22. 26. 27. 28.  
 Dates of Survey while building: During progress of work in shops—  
 During erection on board vessel—  
 Total No. of visits: 22

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 21.8.08 Slides 21.8.08 Covers 21.8.08 Pistons 25.7.08 Rods 25.7.08  
 Connecting rods 21.8.08 Crank shaft 25.7.08 Thrust shaft 25.7.08 Tunnel shafts Screw shaft 22.8.08 Propeller 22.8.08  
 Stern tube 22.8.08 Steam pipes tested 1.9.08 Engine and boiler seatings 26.8.08 Engines holding down bolts 4.9.08  
 Completion of pumping arrangements 15.9.08 Boilers fixed 4.9.08 Engines tried under steam 4.9.08  
 Main boiler safety valves adjusted 4.9.08 Thickness of adjusting washers 3/8 3/8  
 Material of Crank shaft Steel Identification Mark on Do. 1415AH Material of Thrust shaft Steel Identification Mark on Do. 56GAH  
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do. 56GAH  
 Material of Steam Pipes Solid drawn Copper Test pressure 400 lbs per sq inch

**General Remarks** (State quality of workmanship, opinions as to class, &c. The engines and boiler of this vessel have been constructed under special survey the materials and workmanship are good. The boiler tested by hydraulic pressure and with the engines fitted and secured on board, and tried under steam. They are now in good order and safe working condition and respectfully submitted as being eligible in our opinion to be classed with the notation of **L.M.C. 9.08** in the Register Book.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 9.08.

*J.R.R.* 30.9.08  
*H.C.* 30-9-08

The amount of Entry Fee .. £ 1 : : :  
 Special .. £ 11 : 2 : :  
 Donkey Boiler Fee .. £ : : :  
 Travelling Expenses (if any) £ : 6 : 4 : :  
 £ 12 : 8 : 4

When applied for, 29.9.1908

When received, 15.10.1908

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

Committee's Minute

FRI 2 OCT 1908

MACHINERY CERTIFICATE WRITTEN.

Assigned

+ L.M.C. 9.08



© 2021 Lloyd's Register Foundation

Certificate (if required) to be sent to

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