

REPORT ON MACHINERY.

No. 20675

Received at London Office

JUL 17 NOV 1908

Date of writing Report 14/11/1908 When handed in at Local Office 14/11/1908 Port of Hull
 No. in Survey held at Hull & Goole Date, First Survey June 25th Last Survey 9th Nov 1908
 Reg. Book. 14 Hull on the Steel Se. R. River Dart (Number of Visits 36)
 Master Built at Goole By whom built Goole S. B. & Co. Ltd Tons { Gross 328
 Engines made at } Hull By whom made } Messrs Earle's Co. Ltd when made 1908
 Boilers made at } Hull By whom made } Earle's Co. Ltd when made 1908
 Registered Horse Power Owners The Devon Steam Trawling Co., Ltd. Port belonging to Hithwood
 Nom. Horse Power as per Section 28 91 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 13" ~ 22½" ~ 37" Length of Stroke 27" Revs. per minute 98 Dia. of Screw shaft as per rule 7.74" Material of screw shaft as fitted 8" Material of 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 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 40½"
 Dia. of Thrust shaft as per rule 6.87" Dia. of Crank shaft journals as per rule 7.21" Dia. of Crank pin 7½" Size of Crank webs 14½" x 4½" Dia. of thrust shaft under
 collars 7½" Dia. of screw 9" ~ 9" Pitch of Screw 12.0" No. of Blades 4 State whether moveable No Total surface 32 ft
 No. of Feed pumps 2 Diameter of ditto 2½" Stroke 14" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2½" Stroke 14" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 6" x 6" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room one 2" one 3" In Holds, &c. One each 2½" to each, the
 fish room, aft clush well, and forward clush well. Ejector from these parts
 No. of Bilge Injections 1 sizes 3½" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3"
 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 12.10.08 of Stern Tube 12.10.08 Screw shaft and Propeller 12.10.08
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door 12.10.08 worked from

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Messrs W. Beardmore Sons
 Total Heating Surface of Boilers 1600 ft Is Forced Draft fitted No No. and Description of Boilers 1 Cyl. Multi Sing. Ended.
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29.9.08 No. of Certificate 1645
 Can each boiler be worked separately Area of fire grate in each boiler 47.2 ft No. and Description of Safety Valves to
 each boiler Two sprung Area of each valve 4.9 ft 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 6" Mean dia. of boilers 13' ~ 6" Length 11' ~ 0" Material of shell plates Steel
 Thickness 1½" Range of tensile strength 28.32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.D.
 long. seams D.B.S.I.R. Diameter of rivet holes in long. seams 1½" Pitch of rivets 7 1/16" Lap of plates or width of butt straps 16½"
 Per centages of strength of longitudinal joint rivets 85.4 plate 85.3 Working pressure of shell by rules 185 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 31" x 28" x 1½" No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 40"
 Length of plain part top 7' ~ 0" Thickness of plates crown 4.9" bottom 6.4" Description of longitudinal joint Welded No. of strengthening rings 0
 Working pressure of furnace by the rules 181 lbs Combustion chamber plates: Material Steel Thickness: Sides 3/32" Back 5/8" Top 21/32" Bottom 21/32"
 Pitch of stays to ditto: Sides 8½" x 9" Back 8" x 8" Top 9" x 9" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 183 lbs
 Material of stays Steel Diameter at smallest part 1½" Area supported by each stay 64 ft Working pressure by rules 221 lbs End plates in steam space:
 Material Steel Thickness 1½" Pitch of stays 17 1/8" x 18" How are stays secured D. No Working pressure by rules 181 lbs Material of stays Steel
 Diameter at smallest part 2 1/16" Area supported by each stay 312.75 ft Working pressure by rules 207 lbs Material of Front plates at bottom Steel
 Thickness 3/32" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14" x 8" Working pressure of plate by rules 203 lbs
 Diameter of tubes 3½" Pitch of tubes 5" x 4 1/8" Material of tube plates Steel Thickness: Front 29/32" Back 13/16" Mean pitch of stays 9 1/8"
 Pitch across wide water spaces 14" Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10½" x 13" Length as per rule 3' ~ 1½" Distance apart 9" Number and pitch of stays in each 3 ~ 9"
 Working pressure by rules 213 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

W1580-0057

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

The foregoing is a correct description,

F. J. Palethorpe Manufacturer.

SECRETARY 1908:— Jun 25 Jul 20. 25. 30. 31. Aug. 21. 22. 31. Sep. 2. 8. 9. 10. 16. 22. 23. 25. 29. Oct. 2. 6. 7. 9. 10. 12. 13. 15. 16. 19. 20. 21. 26. 27. 28. 30. Nov. 4. 5. 9.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - }
 Total No. of visits 36

Is the approved plan of main boiler forwarded herewith Yes ✓

Dates of Examination of principal parts—Cylinders 21. 9. 08 Slides 2. 9. 08 Covers 29. 9. 08 Pistons 2. 10. 08 Rods 29. 9. 08

Connecting rods 31. 8. 08 Crank shaft 31. 8. 08 Thrust shaft 29. 9. 08 Tunnel shafts _____ Screw shaft 9. 10. 08 Propeller 9. 10. 08

Stern tube 2. 9. 08 Steam pipes tested 15. 10. 08 Engine and boiler seatings 2. 10. 08 Engines holding down bolts 20. 10. 08

Completion of pumping arrangements 9. 11. 08 Boilers fixed 20. 10. 08 Engines tried under steam 9. 11. 08

Main boiler safety valves adjusted 20. 10. 08 Thickness of adjusting washers $\frac{5}{16}$ $\frac{3}{8}$

Material of Crank shaft Steel Identification Mark on Do. 139 G.A.H. Material of Thrust shaft Steel Identification Mark on Do. G.H. 58

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts Iron Identification Marks on Do. G.H. 58

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 in accordance with the Rules. The materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines secured on board, tested under steam and found satisfactory. They are ^{now} in good order and safe working condition, and respectfully submitted as being eligible in my opinion to be classed with the notation of $\frac{1}{2}$ L M 6 11 08 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L M C. 11. 08.

The amount of Entry Fee .. £ 1 : . : When applied for, 16/11/08

Special .. £ 13 : 13 : When received, 31. 12. 08

Donkey Boiler Fee .. £ : : 30. 1. 2. 08

Travelling Expenses (if any) £ : 6 : 4

Committee's Minute

THES. 24 NOV 1908

Assigned

+ L M C. 11. 08.

MACHINERY CERTIFICATE WRITTEN

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



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Null

Certificate (if required) to be sent to

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