

Date of writing Report 21st Aug 1916 When handed in at Local Office 25th Aug 1916 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 7 October, 1915 Last Survey 22nd Aug 1916
 Reg. Book. on the Machinery of the R.F.A. "Creosol" (Number of Visits 74)
 Master Short Bros. Ltd Built at Sunderland By whom built Short Bros. Ltd When built 1916
 Engines made at Sunderland By whom made J. Dickinson & Sons Ltd. when made 1916
 Boilers made at " By whom made " when made 1916
 Registered Horse Power Admiralty Port belonging to London
 Nom. Horse Power as per Section 28 141 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 16", 26", 43" Length of Stroke 27" Revs. per minute 100 Dia. of Screw shaft 9.39" 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 ✓ Length of stern bush 3'-3"
 Dia. of Tunnel shaft 7.76" Dia. of Crank shaft journals 8.14" Dia. of Crank pin 8 1/4" Size of Crank webs 15" X 5 1/2" Dia. of thrust shaft under
 collars 8 1/4" Dia. of screw 11'-0" Pitch of Screw 11'-0" No. of Blades 4 State whether moveable No Total surface 36 9/16"
 No. of Feed pumps 2 Dia. of ditto 5" Stroke 15" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Dia. of ditto 8" Stroke 18" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 9" X 12" stroke No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 of 2 1/2" & 2 of 3" in Boiler room Holds, &c. oil cargo pumps & one of 4"
in fore hold. after coffee dam 8-4"
 No. of Bilge Injections 1 sizes 7" Connected to condenser, or to circulating pump pumps Is a separate Donkey Suction fitted in Engine room & size Yes 4"
 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 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 8/8/16 of Stern Tube 8/8/16 Screw shaft and Propeller 8/8/16
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel J. Spencer & Son
 Total Heating Surface of Boilers 2155 Is Forced Draft fitted Yes No. and Description of Boilers 2 Single-ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 7/8/16 No. of Certificate 3327
 Can each boiler be worked separately Yes Area of fire grate in each boiler oil fuel No. and Description of Safety Valves to
 each boiler 2 direct spring Area of each valve 7.06 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 5'-6" Mean dia. of boilers 10'-3" Length 11'-0" Material of shell plates Steel
 Thickness 27/32 Range of tensile strength 29-33 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams d. r. l.
 long. seams z. r. d. l. Diameter of rivet holes in long. seams 15/16 Pitch of rivets 6 1/16 Lap of plates or width of butt straps 14 1/8"
 Per centages of strength of longitudinal joint 97.17 Working pressure of shell by rules 184 lbs Size of manhole in shell 16" X 12"
 Size of compensating ring 7 7/8" X 27/32 No. and Description of Furnaces in each boiler 2 Brightons Material Steel Outside diameter 35 1/2"
 Length of plain part top Thickness of plates crown Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 195 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 1/16
 Pitch of stays to ditto: Sides 9" X 10" Back 10 1/2" X 8 1/2" Top 9" X 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180 lbs
 Material of stays Steel Diameter at smallest part 2.031 Area supported by each stay 98.5 Working pressure by rules 186 lbs End plates in steam space:
 Material Steel Thickness 27/32 Pitch of stays 14" X 13 1/4" How are stays secured d. n. w. Working pressure by rules 181 lbs Material of stays Steel
 Diameter at smallest part 3.25 Area supported by each stay 185.5 Working pressure by rules 182 lbs Material of Front plates at bottom Steel
 Thickness 27/32 Material of Lower back plate Steel Thickness 27/32 Greatest pitch of stays 13" X 8 3/8" Working pressure of plate by rules 205 lbs
 Diameter of tubes 3" Pitch of tubes 4 1/4" X 4 1/4" Material of tube plates Steel Thickness: Front 27/32 Back 13/16 Mean pitch of stays 8 1/2" X 10 3/8"
 Pitch across wide water spaces 13" Working pressures by rules 269 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 6" X 2" Length as per rule 29 1/2" Distance apart 7" Number and pitch of stays in each 2 of 9"
 Working pressure by rules 181 lbs Superheater or Steam chest; how connected to boiler none 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 ✓

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:-

Two top end & 2 bottom end bolts, 2 main bearing bolts, 1 set of coupling bolts, set of piston springs, set of feed & bilge pump valves, a quantity of assorted bolts nuts & iron, spare propeller, top & bottom end brasses, eccentric strap complete, set of thrust shoes, air pump rod & valves set of metallic packing for piston rods & slide rods, 20 condenser tubes & minor parts, in accordance with specification.

The foregoing is a correct description,

John Dickinson & Sons, Limited.

Admiral

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1915 Oct. 7. Nov. 5. 11. 16. 25. 30 Dec. 20. 21. 30 Jan. 6. 7. 11. 12. 13. 18. 24. 27 Feb. 4. 5. 8. 10. 11. 14. 29 Mar. 2. 7. 9. 14
During erection on board vessel - - - 15. 16. 21. 23. 27. 28. 30 Apr. 4. 6. 11. 14. 18. 20. 26. 28 May 2. 12. 25. 30. 31 Jun. 6. 13. 20. 22. 24. 28. 30 Jul. 3. 5. 6. 11. 12. 27. 29 Aug. 3. 4. 5. 9. 10. 14. 16. 17. 18. 19
Total No. of visits 74

Is the approved plan of main boiler forwarded herewith

yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 11/2/16 Slides 18/4/16 Covers 16/5/16 Pistons 18/4/16 Rods 7/1/16
Connecting rods 7/3/16 Crank shaft 14/3/16 Thrust shaft 11/2/16 Tunnel shafts 31/5/16 Screw shaft 25/5/16 Propeller 27/3/16
Stern tube 7/3/16 Steam pipes tested 6/7/16 Engine and boiler seatings 6/1/16 Engines holding down bolts 31/5/16
Completion of pumping arrangements 16/8/16 Boilers fixed 31/5/16 Engines tried under steam 16/8/16
Main boiler safety valves adjusted 29/7/16 Thickness of adjusting washers P.P. 3/2" S. 3/16" S. P. 1/4" S. 7/32"
Material of Crank shaft Steel Identification Mark on Do. 25/5/16 Material of Thrust shaft Steel Identification Mark on Do. 25/5/16
Material of Tunnel shafts Steel Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 25/5/16
Material of Steam Pipes Solid drawn Copper & Steel Test pressure 360 lbs & 540 lbs.
Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes
Have the requirements of Section 49 of the Rules been complied with Yes
Is this machinery duplicate of a previous case no If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been built under special survey, the materials used are good, and the workmanship is satisfactory, it has been properly fitted on board and secured, and the engines have been tried under full power. In my opinion this vessel is eligible for the record of L.M.C. 8, 16 fitted for oil fuel over 150°.

It is submitted that this vessel is eligible for

THE RECORD, + L.M.C. 8. 16. F.D.

Fitted for oil fuel 8. 16. F.P. above 150°F.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 40. " : :
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 20/1/17 2/7/17

Charles Cooper & S. Reul.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. - 1 SEP. 1916

TUE. 29 JAN. 1918

Assigned

+ L.M.C. 8. 16. F.D.
Fitted for oil fuel 8. 16. F.P. above 150°F.



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