

REPORT ON MACHINERY.

No. 276

Received at London Office WED. 29 MAY. 1918

Date of Writing Report 21/1/1918 When handed in at Local Office 29/1/1918 Port of Sheffield
No. in Survey held at Lowby Bridge Date, First Survey 29/1/18 Last Survey 16/1/18
Reg. Book. on the Steel Screw Drifter D12. NONE (Number of Visits 26 Gross Tons 18 Net Tons 16)
Master Lowby Bridge Built at Lowby By whom built Messrs Colby Bros Ld When built 1918
Engines made at Lowby Bridge By whom made Messrs Pollard & Wiggall Ld when made 1918
Boilers made at Oldbury By whom made Danks & Co Ltd when made 1918
Registered Horse Power 270 Owners British Admiralty Port belonging to -
Nom. Horse Power as per Section 28 42.4 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 9 1/2" x 16 1/2" x 26" Length of Stroke 18" Revs. per minute 5.45 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 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 - 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 24"
Dia. of Tunnel shaft 4 7/8" Dia. of Crank shaft journals 5 1/4" Dia. of Crank pin 5 1/2" Size of Crank webs 10 x 8 1/2" Dia. of thrust shaft under
collars 5 1/2" Dia. of screw 6 1/4" Pitch of Screw 8 1/2" No. of Blades 4 State whether moveable No Total surface 18 sq ft
No. of Feed pumps 1 Diameter of ditto 2 1/2" Stroke 9" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 1 Diameter of ditto 2 1/2" Stroke 9" Can one be overhauled while the other is at work Yes
No. of Donkey Engines one Sizes of Pumps 5 1/4" x 3 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Two 2" dia. one ejector 2" In Holds, &c. One 2" dia

No. of Bilge Injections one sizes 2 1/2" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size 2" Yes
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 Yes
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
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from -

BOILERS, &c.—(Letter for record B) Manufacturers of Steel -
Total Heating Surface of Boilers 814 sq ft Is Forced Draft fitted Yes No. and Description of Boilers One single ended
Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 13.5.17 No. of Certificate 389
Can each boiler be worked separately Yes Area of fire grate in each boiler 30 sq ft No. and Description of Safety Valves to
each boiler 2. Spring loaded Area of each valve 3.98 sq in Pressure to which they are adjusted 180 lb Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 6" 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 - Area 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 Front plates at bottom -
Area at smallest part - Area supported by each stay - Working pressure by rules - Material of Front plates at bottom -
Thickness - Material - Lower back plate - Thickness - Greatest pitch of stays - Working pressure of plate by rules -
Diameter of tube - Pitch of tubes - Material of tube plates - Thickness: Front - Back - Mean pitch of stays -
Pitch across - 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 - Steam dome: description of joint to shell - % of strength of joint -
Diameter - Thickness of shell plates - Material - Description of longitudinal joint - Diam. of rivet holes -
Pitch of rivets - Working pressure of shell by rules - Crown plates - Thickness - How stayed -

27 SUPERHEATER. Type - Date of Approval of Plan - Tested by Hydraulic Pressure to -
Date of Test - Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler -
Diameter of Safety Valves - Pressure to which each is adjusted - Is Easing Gear fitted -

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:—

2 Connecting rod bolts (top End)	✓ 1 set feed pop valves	✓ 6 cylinder cover studs & nuts
2 " " " (bolt End)	✓ 1 " helge " "	✓ 6 junk ring bolts & nuts
2 Main bearing bolts	✓ 1 " air pop valves	✓ 1 valve for main check
1 set coupling bolts	✓ 1 " air " "	✓ 1 " " donkey check
	✓ 6 Condenser tubes	✓ 1 spring for safety valve
	✓ 12 " Ferrules	✓ 6 gudgeon glass rings
		✓ 3 plain boiler tubes
		✓ 1 set of gun bars, turning bars complete
		✓ for both furnaces

A quantity of bolts, nuts & iron of various sizes.

The foregoing is a correct description,

E. P. Poole

Manufacturer.

Dates of Survey while building	{	During progress of work in shops --	29/6/18, 30/7, 8/8, 24/8, 25/9, 7/10, 24/10, 5/11, 12/11, 21/12, 11/1, 24/1, 4/2, 15/2, 1/3, 13/3, 27/3, 9/4, 25/5, 15/6/18
		During erection on board vessel --	June 18, July 12, Sep 14, 25, Oct 2, 8, 10, 11, 12, 16
		Total No. of visits	31

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 13/7/18, 15/7/18, Slides 13/7/18, 15/7/18, Covers 24/8/18, 17/9/18, Pistons 13/7/18, 15/7/18, Rods 13/7/18, 15/7/18, Connecting rods 13/7/18, 15/7/18, Crank shaft 9/4/18, 17/9/18, Thrust shaft 9/4/18, 17/9/18, Tunnel shafts —, Screw shaft 11/1/18, 27/3/18, Propeller 27/3/18, Stern tube 4/1, 6, 27/3/18, Steam pipes tested 14-9-18, Engine and boiler seatings 14-9-18, Engines holding down bolts 14-9-18, Completion of pumping arrangements 25-9-18, Boilers fixed 18-6-18, Engines tried under steam 25-9-18, Completion of fitting sea connections 10-5-18, Stern tube 10-5-18, Screw shaft and propeller 10-5-18, Main boiler safety valves adjusted, Thickness of adjusting washers P. 1/2 S. 1/2

Material of Crank shaft *Steel* Identification Mark on Do. *4662 J.A.H.* Material of Thrust shaft *Steel* Identification Mark on Do. *4663 J.A.H.*

Material of Tunnel shafts Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. *540 R.F.M.*

Material of Steam Pipes *Copper* ✓ Test pressure *360 lb* ✓

Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case? 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, and in accordance with the Specification and the Society's Rules, materials & workmanship are sound & good.*

The engine has been forwarded to Messrs Colby Bros & Co. Ltd. Lowestoft - 11.92 vessel

The engine & boiler examined whilst being installed in the vessel, afterwards tried under working conditions & found satisfactory, & is now eligible in our opinion for the record of + L.M.C. 10-18 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 10.18.

H.W.D. 30/12/18

The amount of Entry Fee	£ 9 : 0 : 0	When applied for, 25/11 1918
Special	£ 4 : 10 : 0	When received, 24/12/18
Donkey Boiler Fee	£ :	
Travelling Expenses (if any)	£ :	7.12 1918

P. F. Morton & A. E. Farmer
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI 3 JAN 1919

+ L.M.C. 10.18



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