

REPORT ON MACHINERY.

No. 10241

Received at London Office

THU. NOV. 14. 1918

Date of writing Report 5-11-18 When handed in at Local Office 12/11/18 Port of MIDDLESBRO'
Date, First Survey 13th Oct. 17 Last Survey 26th Oct. 1918
(Number of Visits 79)

Survey held at Middlesbrough
on the "War Typhoon"
Master T.A. Saylor Built at Middlesbrough By whom built Sr. R. Dixon & Co Tons Gross 3116.19
Net 1863.07 When built 1918.

Engines made at Middlesbrough By whom made Messrs. Richardsons Westgait & Co Ltd when made 1918.
Boilers made at Middlesbrough By whom made Messrs. Richardsons Westgait & Co Ltd when made 1918.

Registered Horse Power _____ Owners Shipping Controller Port belonging to London.
Nom. Horse Power as per Section 28 434 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple expansion, Vertical No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 25, 41, 68 Length of Stroke 45 Revs. per minute 78 Dia. of Screw shaft as per rule 13.57 Material of screw shaft S. Steel
as fitted 14.5

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
the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 Yes If two
liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 6'-0"

Dia. of Tunnel shaft as per rule 12.42 Dia. of Crank shaft journals as per rule 13.04 Dia. of Crank pin 13 1/4 Size of Crank webs 3 1/4 x 8 1/2 Dia. of thrust shaft under
collars 13 1/4 Dia. of screw 16'-0" Pitch of Screw 16'-3" No. of Blades 4 State whether moveable No Total surface 15 sq

No. of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Donkey Engines 3 Sizes of Pumps 2 @ 9 1/2 x 7 x 18 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4 @ 3" In Holds, &c. Forward 6 @ 3" Aft 2 @ 3, 2 @ 2 1/2"

No. of Bilge Injections 1 sizes 11" Connected to condenser, or to circulating pump Yes 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 main below, out 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 Suctions to forward holds 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
Is the Screw Shaft Tunnel watertight See hull report Is it fitted with a watertight door No worked from hump at each end

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel John Spence & Sons
Total Heating Surface of Boilers 6420 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended
Working Pressure 180 Tested by hydraulic pressure to 560 Date of test 18.4.18 No. of Certificate 5915

Can each boiler be worked separately Yes Area of fire grate in each boiler 51.7 sq No. and Description of Safety Valves to
each boiler 2 direct spring Area of each valve 8.29 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 5'-8 1/2" Mean dia. of boilers 14'-0" Length 11'-8 1/2" Material of shell plates Steel

Thickness 1 1/8" Range of tensile strength 28/32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams 2A lap
long. seams 2 Butts, 3 riv Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 18"
Per centages of strength of longitudinal joint rivets 86.3 Working pressure of shell by rules 182 Size of manhole in shell None
plate 86.0

Size of compensating ring _____ No. and Description of Furnaces in each boiler 3 Deighton Material Steel Outside diameter 43"
Length of plain part top _____ Thickness of plates crown 3 1/32" Description of longitudinal joint Weld No. of strengthening rings 1
bottom _____ bottom 3 1/32"

Working pressure of furnace by the rules 190 Combustion chamber plates: Material Steel Thickness: Sides 1 1/16" Back 3 1/4" Top 1 1/16" Bottom 1 1/16"
Pitch of stays to ditto: Sides 9 1/8 x 9" Back 10 1/8 x 9 1/2" Top 9 1/8 x 9" If stays are fitted with nuts or riveted heads None Working pressure by rules 193

Material of stays Steel Area at smallest part 2.03 Area supported by each stay 84.3 Working pressure by rules 217 End plates in steam space:
Material Steel Thickness 1 1/32" Pitch of stay 23 3/4 x 19 1/4 How are stays secured Hub & washer Working pressure by rules 182 Material of stays Steel
Area at smallest part 8.24 Area supported by each stay 463 Working pressure by rules 185 Material of Front plates at bottom Steel

Thickness 3 1/32" Material of Lower back plate Steel Thickness 2 1/32" Greatest pitch of stays 13.5 x 9 Working pressure of plate by rules 187
Diameter of tubes 2 3/4" Pitch of tubes 4 x 4 Material of tube plates Steel Thickness: Front 3 1/32" Back 3 1/4" Mean pitch of stays 10"

Pitch across wide water spaces 13.5 Working pressures by rules 185 Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 10 1/2 : 1 1/2 Length as per rule 35.5 Distance apart 9 3/8" Number and pitch of stays in each 3 @ 9"
Working pressure by rules 200 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 _____

Tested by Hydraulic Pressure to _____
SUPERHEATER. Type _____ Date of Approval of Plan _____
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 Valve _____ 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:— Two each of main bearing, connecting rod top, and bottom end bolts & nuts, one set of coupling bolts & nuts, one set each of feed and bilge pump valves, CI propeller, assorted bolts & nuts and iron of various sizes, and main gear as per revised list, attached to specification.

The foregoing is a correct description,

for and on behalf of RICHARDSON, WESTGARTH & Co., Ltd.

H. Jackson, MANAGER

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1917 Oct 13, 19, 26, 29, Nov 5, 12, 15, 16, 1918 Jan 7, 9, 15, 17, 21, Feb 4, 11, 13, 18, 22, 25, 27, Mar 1, 6, 8, 11, 13, 19, 22, 25, Apr 4, 10, 12, 23, 25, May 1, 2, 7, 13, 24, 29, June 3, 5, 8, 14, 18, 19, 20, 21, 24, 27, 29, July 3, 8, 9, 12, 15, 22, 23, 24, 29, Aug 2, 6, 9, 12, 15, 16, 17, 27, 29, Sep 2, 4, 5, 6, 11, Oct 8, 17, 21, 23, 25, 26. Total No. of visits 79. Is the approved plan of main boiler forwarded herewith? Yes. " " " donkey " " " "

Dates of Examination of principal parts—Cylinders 11-3-18 Slides 2-5-18 Covers 11-3-18 Pistons 10-4-18 Rods 19-3-18 Connecting rods 19-3-18 Crank shaft 4-1-18 Thrust shaft 9-7-18 Tunnel shafts 9-7-18 Screw shaft 24-7-18 Propeller 3-7-18 Stern tube 9-4-18 Steam pipes tested 12-4-18 Engine and boiler seatings 12-4-18 Engines holding down bolts 12-7-18

Completion of pumping arrangements 28-10-18 Boilers fixed 24-8-18 Engines tried under steam 7-10-18

Completion of fitting sea connections 24-6-18 Stern tube 9-4-18 Screw shaft and propeller 24-8-18

Main boiler safety valves adjusted 6-9-18 Thickness of adjusting washers Pp 3/8" 5/16" : Cp 3/8" 5/16" : Sp 7/16" 5/8"

Material of Crank shaft Steel Identification Mark on Do. 5941-AB Material of Thrust shaft S. Steel Identification Mark on Do. 7145-TM

Material of Tunnel shafts Steel Identification Marks on Do. 7145-TM Material of Screw shafts Steel Identification Marks on Do. 7145-TM

Material of Steam Pipes Iron Test pressure 540 lbs

Is an installation fitted for burning oil fuel? No. 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? Yes.

Is this machinery duplicate of a previous case? No. If so, state name of vessel Standard 6.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special Survey in accordance with the Rules and the amended specification. The materials and workmanship are good. On completion, the engines, boilers, and auxiliary machinery were examined under working conditions and found satisfactory.

The machinery of this vessel is in a good and efficient condition and eligible, in my opinion for notation of + LMC 10-18 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 10.18. F.D.

JWD 15/11/18. JMR

The amount of Entry Fee ... £ : : When applied for, Special ... £ 69 : 5 : 5/11/19. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 11-12-19.

George Thomas & Thomas Miles, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

WED. 20 NOV 1918

Assigned

+ LMC 10.18

MADE BY THE REGISTER WRITTEN



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

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