

REPORT ON MACHINERY

No. 71840

Received at London Office

FRI. 5-MAR. 1919

Date of writing Report 16th April 1919 When handed in at Local Office

to Port of

NEWCASTLE-ON-TYNE

No. in Survey held at Newcastle on Tyne

Date, First Survey 8th Sept. 1916 Last Survey 16th April 1919

Reg. Book.

(Number of Visits 47)

on the SCREW STEAMER WAR TAMAR.

Gross 469.
Net 250

Master

Built at Wallsend

By whom built Messrs. Hunter, Neill & Co. Ltd. When built 1919

Engines made at North Shields

By whom made Shields Eng. & Dry Dock Co. Ltd. when made 1919

Boilers made at Hebburn

By whom made Messrs. Palmers Ship'g & Iron Co. when made 1914.

Registered Horse Power

Owners The Shipping Controller

Port belonging to

Nom. Horse Power as per Section 28 69.

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted No.

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders Three

No. of Cranks Three

Dia. of Cylinders 12"-20"-34"

Length of Stroke 24"

Revs. per minute 100

Dia. of Screw shaft 7³/₈"

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 in 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

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 2' 8"

Dia. of Tunnel shaft 6' 2 1/2"

Dia. of Crank shaft journals 6' 5 1/2"

Dia. of Crank pin 6' 3 1/4"

Size of Crank webs 4' 3 1/2" x 9' 3 1/4"

collars 6' 3 1/4"

Dia. of screw 8' 9"

Pitch of Screw 11' 0"

No. of Blades 4

State whether moveable No

Total surface 30 sq. ft.

No. of Feed pumps 2

Diameter of ditto 2' 4"

Stroke 12"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 2' 4"

Stroke 12"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 1

Sizes of Pumps 6' 4" x 6"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three 2" dia.

In Holds, &c. Two 2" dia.

No. of Bilge Injections 1

sizes 3"

Connected to condenser, or to circulating pump C.P.

Is a separate Donkey Suction fitted in Engine room & size Yes 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

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 11/2/19

of Stern Tube 11/2/19

Screw shaft and Propeller 11/2/19

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

J. Spence & Sons Ltd.

Total Heating Surface of Boilers 1178^{sq} ft.

Is Forced Draft fitted No

No. and Description of Boilers One 4' 11" x 11' 11" Single

Working Pressure 180 lb

Tested by hydraulic pressure to 360 lb

Date of test 29/5/17

No. of Certificate 8949

Can each boiler be worked separately

Area of fire grate in each boiler 33 sq. ft.

No. and Description of Safety Valves to

each boiler 2: Direct Spring loaded

Area of each valve 4' 9"

Pressure to which they are adjusted 185 lb

Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 18"

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

rivets

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

top

Thickness of plates

crown

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

Diameter 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 stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

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

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

Lloyd's Register
Foundation

4. 71840.

IS A DONKEY BOILER FITTED? No. ✓ If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— 2 Main Bearing Bolts & Nuts. ✓ 2 Top end bolts & nuts. ✓
2 Bottom end bolts & nuts. ✓ 1 Set of coupling bolts. ✓ 20 Brass ferrules for condenser. ✓
6 Gauge glasses & 12 rings. 1 Set Feed Pump Valves & Seats. 1 Set. Bilge Valves & Seats.
6 Piston bolts & nuts. 1 Propeller. 1 set Air Pump valves. 1/2 set. Circ. pump valves
1/2 Set Firebars. 2 Safety Valve Springs. 2 Back bridge Plates for boiler.
6 Piston Bolts Feed Bilge pump escape valve springs. Bolts & nuts
assorted sizes, Iron of various sizes ✓

The foregoing is a correct description,

W. H. Bradshaw

Manufacturer. April 25th 1919

Dates of Survey while building { During progress of work in shops -- 1916 Feb 8 Dec 5. 14. 19. 22. 29 Jan 4. 8. 12. 16. 19. 23. 26 Feb 1. 6. 7. 12. 14. 16. 21. 27. Mar 6. 8. 13. 15. 21. 26
During erection on board vessel -- Apr 2. 5. 19. 30. May 7. 23. 1918 Nov 27. Dec 13. 1918 Jan 8. 14. 27. Feb 4. 11. Mar 24. 28
Total No. of visits 47.

Is the approved plan of main boiler forwarded herewith ☒ Yes attached to be reviewed by

" " " donkey " " " " " " " " " "

Dates of Examination of principal parts—Cylinders 21/2/17 Slides 26/3/17 Covers 16/4/19 Pistons 6/3/17 Rods 21/2/17
Connecting rods 21/2/17 Crank shaft 21/2/17 Thrust shaft 27/4/18 Tunnel shafts - Screw shaft 27/4/18 Propeller 21/2/17
Stern tube 14/1/19 Steam pipes tested 25/3/19 Engine and boiler seatings 11/2/19 Engines holding down bolts 28/3/19
Completion of pumping arrangements 16/4/19 Boilers fixed 16/4/19 Engines tried under steam 16/4/19
Main boiler safety valves adjusted 28/3/19 Thickness of adjusting washers $PT \frac{3}{8} \times 50 \frac{1}{4}$
Material of Crank shaft Iron Identification Mark on Do. 3924 Material of Thrust shaft Iron Identification Mark on Do. 3924
Material of Tunnel shafts - Identification Marks on Do. - Material of Screw shafts Iron Identification Marks on Do. 3924
Material of Steam Pipes Copper ✓ Test pressure 360 lbs.
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 Yes ✓ If so, state name of vessel. Ind. Alvestone ✓

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

The machinery of this vessel was built under special survey and the materials and workmanship are good. On completion it was examined under steam and found to work satisfactorily. It is now in good and efficient condition throughout and eligible in our opinion to have the record of ~~L.M.C.~~ 4, 19. marked in the Society's Register Book

It is submitted that this vessel is eligible for T.B.B. RECORD + L.M.C. 4. 19.
J.W.D. 10/5/19.
P.R.B.

The amount of Entry Fee ... £ : : When applied for, 2 - MAY 1919
Special ... £ 6 : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When received, 21.5.19 A.M.

W. J. Indale & Wm. Austin
Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.
22/5/19

Committee's Minute
Assigned
L.M.C. 4:19



NEWCASTLE-ON-TYNE

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