

REPORT ON MACHINERY.

No. 76570
WUN. MAR. 26 1923

Received at London Office

Date of writing Report 17.3.23 When handed in at Local Office 19/3/1923 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at WALKER Date, First Survey 19 Sept/22 Last Survey 13 March 1923
 Reg. Book. on the STEEL SCREW STEAMER "MARJORIE" S. (Number of Visits 33)
 Master WALLSEND Built at WALLSEND By whom built SWAN HUNTER, W. RICHARDSON & CO When built 1923
 Engines made at WALKER By whom made SWAN HUNTER, WIGHAM RICHARDSON & CO when made 1923
 Boilers made at WALKER By whom made SWAN HUNTER, WIGHAM RICHARDSON & CO when made 1923
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Section 28 214 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

ENGINES, &c.—Description of Engines TRIPLE EXPANSION No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 20-33-54 Length of Stroke 36 Revs. per minute _____ Dia. of Screw shaft as per rule 11.38 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 3-9 1/2
 Dia. of Tunnel shaft as per rule 9.931 Dia. of Crank shaft journals as per rule 10.427 Dia. of Crank pin 10 1/2 Size of Crank webs 6 1/2 x 15 3/4 Dia. of thrust shaft under collars 10 3/4 Dia. of screw 14-3 Pitch of Screw 15-3 No. of Blades 4 State whether moveable NO Total surface 61 1/2
 No. of Feed pumps 2 Diameter of ditto 2 3/4 Stroke 22 Can one be overhauled while the other is at work YES
 No. of Bilge pumps 2 Diameter of ditto 3 1/4 Stroke 22 Can one be overhauled while the other is at work YES
 No. of Donkey Engines 2 Sizes of Pumps BALLAST, DUPLEX, 7x8x8 No. and size of Suctions connected to both Bilge and Donkey pumps FEED, DUPLEX, 6x4x6
 In Engine Room 3 of 2 1/4 dia - well off 2 1/4 In Holds, &c. Bunkers 2 of 3 dia affhold
 No. of Bilge Injections 1 sizes 4 Connected to condenser, or circulating pump CP Is a separate Donkey Suction fitted in Engine room & size YES 3 1/2
 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 _____ 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 TOP PLATFORM

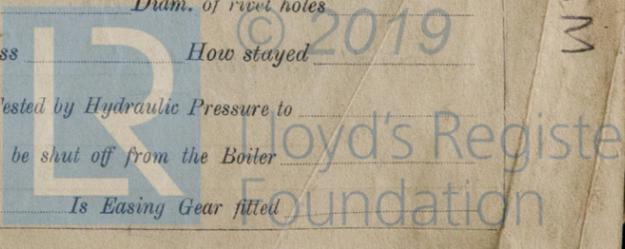
BOILERS, &c.—(Letter for record S) Manufacturers of Steel Shaw & Sons Ltd.
 Total Heating Surface of Boilers 3640 Is Forced Draft fitted NO No. and Description of Boilers 2. S.E. CYL. MULTI
 Working Pressure 180 lb Tested by hydraulic pressure to 320 lb Date of test 20.12.22 No. of Certificate 9707
 Can each boiler be worked separately YES Area of fire grate in each boiler 1099 No. and Description of Safety Valves to each boiler 2. DIRECT SPRING Area of each valve 5.939 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 5-9 dia. of boilers 14-0 Length 10-6 Material of shell plates STEEL
 Thickness 1 1/8 Range of tensile strength 30/34 TONS Are the shell plates welded or flanged NO Descrip. of riveting: cir. seams D.R.L long. seams TR.D.B.S Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7 1/8 Lap of plates or width of butt straps 16 5/8
 Per centages of strength of longitudinal joint rivets 86.06% Working pressure of shell by rules 180 lb Size of manhole in shell 16 x 12 plate 85.67%
 Size of compensating ring _____ No. and Description of Furnaces in each boiler 3. DEIGHTON Material STEEL Outside diameter 3'-6 7/8
 Length of plain part top 7-5 7/8 Thickness of plates crown 1/2 Description of longitudinal joint WELD No. of strengthening rings NONE bottom _____
 Working pressure of furnace by the rules 182 lb Combustion chamber plates: Material STEEL Thickness: Sides 1 1/8 Back 1 1/8 Top 1 1/8 Bottom 1 1/8
 Pitch of stays to ditto: Sides 10 x 9 Back 9 x 9 Top 9 1/4 x 9 1/4 If stays are fitted with nuts or riveted heads NUTS Working pressure by rules 181 lb
 Material of stays STEEL Area at smallest part 1 3/4 DIA Area supported by each stay 90 Working pressure by rules 201 End plates in steam space: Material STEEL Thickness 1 3/8 Pitch of stays 9 1/2 x 18 1/2 How are stays secured DN-W Working pressure by rules 181 lb Material of stays STEEL
 Area at smallest part 6.10 Area supported by each stay 370 Working pressure by rules 181 Material of Front plates at bottom STEEL
 Thickness 1 1/2 Material of Lower back plate STEEL Thickness 7/8 Greatest pitch of stays 9 x 14 1/2 Working pressure of plate by rules 220 lb
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 3/8 Material of tube plates STEEL Thickness: Front 1 1/2 Back 1 1/8 Mean pitch of stays 11 1/8
 Pitch across wide water spaces 14 1/2 Working pressures by rules 190 lb Girders to Chamber tops: Material STEEL Depth and thickness of girder at centre 8 3/8 x 1 1/4 Length as per rule 29 9/16 Distance apart 9 1/4 Number and pitch of stays in each 2 of 9 3/4
 Working pressure by rules 181 lb Steam dome: description of joint to shell NONE % 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 _____

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 Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

If a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent?

113 TOTAL

W218-0063



IS A DONKEY BOILER FITTED? **None**

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top end bolts and nuts, two bottom end bolts and nuts, two main bearing bolts and nuts, spare coupling bolts and nuts, feed and Bilge pump Valves. assorted iron bolts and nuts, also Spare Ferrules for Condenser (20) - Six piston rings with V rings, 1 Solid Cast Iron 4 blades propeller. two check valves - one set of water and valves for feed and ballast pumps respectively - one dozen Gudge flanges - 20 Nutting rings for gudge flange flanges - Set of spare piston rings for HP and MP. Pistons - Various Engine Room Stores.*

The foregoing is a correct description,

SWAN, HUNTER & WILKINSON RICHARDSON, LTD.

S. D. Christie

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1922: Sep 19, Oct 17, 20, 26, Nov 6, 10, 13, 15, 17, 20, 21, 29, Dec 4, 5, 6, 7, 8, 13, 15, 18, 20, 1923: Jan 3, 4, 10, 18, 30, 31, Feb 2, 5, 26, 28, Mar 12, 13. Total No. of visits: **33**

Is the approved plan of main boiler forwarded herewith? **Yes**

HP Cylinders tested 225 lbs hydraulic test, 31.1.23 - Condenser tested 15 lbs water test - 10/1/23 31.1.23 12.22. " " 2.2.23 19.1.23 18.1.23
Dates of Examination of principal parts - Cylinders 6.12.22 Slides 31.1.23 Covers 31.1.23 Pistons 31.1.23 Rods 31.1.23
18.1.23 8.2.23/4.1.23 8.2.23 8.12.22 21.11.23 30.1.23
Connecting rods 31.1.23 Crank shaft 21.11.22 Thrust shaft 21.11.22 Tunnel shafts 21.11.22 Screw shaft 6.12.22 Propeller 6.12.22
30.1.23 8.2.23 31.1.23
Stern tube Jan. 23 Steam pipes tested 4/17/22 Engine and boiler seatings 30.1.23. Engines holding down bolts 8.2.23
Completion of pumping arrangements 13/2/23, 13.3.23 Boilers fixed 31.1.23, 8.2.23 Engines tried under steam 13.2.23, 13.3.23
Completion of fitting sea connections 30.1.23 Stern tube 30.1.23. Screw shaft and propeller 30.1.23.
Main boiler safety valves adjusted 13.2.23. Thickness of adjusting washers PB. 7/16 - A33 - SB. F7/16 - A3/8
LR. 24 - MR. 12.10.22
Material of Crank shaft **steel** Identification Mark on Do. **L65** Material of Thrust shaft **steel** Identification Mark on Do. **LR. 24/3**
steel - LR. 25/10.22, 24. MR. Identification Marks on Do. **L65** Material of Screw shafts **steel** Identification Marks on Do. **M. 22 - MR. - LGS**
21.11.22
Material of Steam Pipes **Lap weld iron - and steel.** 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? **-**

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 Engines and Boilers built under Special Survey, the material and workmanship found good and efficient. The machinery satisfactorily fitted up on board the vessel, and tested under steam (vessel at mooring) and found satisfactory. 13.3.23. The vessel proceed to sea for sea trials. The machinery working satisfactorily. In my opinion this vessel is now eligible for the notification of + LMC. 3. 23 (in Red) to be made in The Register Book.

Newcastle

It is submitted that this vessel is eligible for THE RECORD. + LMC 3. 23. CL

L.G. Challers
27/3/23

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 4 : 0 :
Special ... £ 53 : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 23/3/23.
When received, 31/3/23.

Committee's Minute THU. MAR 29 1923

Assigned + Lmb. 323
C.L.

CERTIFICATE WRITTEN



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