

REPORT ON MACHINERY.

No. 76570
MON. MAR. 26 1923

Received at London Office

Date of writing Report 17.3.23 When handed in at Local Office 19/3/23 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 Built at WALLSEND By whom built SWAN HUNTER, W. RICHARDSON & CO. When built 1923-
Engines made at WALKER By whom made SWAN HUNTER, W. RICHARDSON & CO. when made 1923
Boilers made at WALKER By whom made SWAN HUNTER, W. 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 1138 Material of 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 1/4 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
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 to 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 Spence & Sons Ltd. 2SB.
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 109 1/2 No. and Description of Safety Valves to L.G.S
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 OUTSIDE dia. of boilers 14-0 Length 10-6 Material of shell plates STEEL
Thickness 1 1/2 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 9/8
Per centages of strength of longitudinal joint rivets 86.66 plate 85.67 Working pressure of shell by rules 180 lb Size of manhole in shell 16 x 12
FLANGED, 37 x 33 CORRUGATED
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
Working pressure of furnace by the rules 182 lb Combustion chamber plates: Material STEEL Thickness: Sides 11/16 Back 11/16 Top 11/16 Bottom 11/16
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 5/8 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 lb 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 1/2 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 1/2 x 1 1/4 Length as per rule 29 9/8 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 not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

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 Funnels for Condenser (20) - Six piston rings for both tanks, 1 Solid Cast Iron 4-bladed propeller - two check valves - one set of water end valves for feed and ballast pumps respectively - one dozen gauge glasses - 20 Nutting rings for gauge glass glands - Set of spare piston rings for HP and MP. Pistons - Various Engine Room Stores.*

The foregoing is a correct description,

SWAN, HUNTER & WILKINSON, 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, 16, 28, Mar. 12, 13.
During erection on board vessel - - -
Total No. of visits *33*

Is the approved plan of main boiler forwarded herewith *yes*

HP Cylinder tested 225 lbs hydraulic test, 31.1.23 -

Condenser tested 15 lbs water test 10/1/23

31.1.23

12.2.23

2.2.23 donkey "

18.1.23

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 21.11.22 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 4/12/22 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

Material of Crank shaft *steel* Identification Mark on Do. *LR. 24 - NR. 12.10.22* Material of Thrust shaft *steel* Identification Mark on Do. *LR. 24/3*

steel - LR. 25/10.22, 24. NR Identification Marks on Do. *LR. 25* Material of Screw shafts *steel* Identification Marks on Do. *LR. 22 - MR. 1/6.5*

Material of Tunnel shafts *LR. 25* Identification Marks on Do. *LR. 25* Material of Screw shafts *steel* Identification Marks on Do. *LR. 22*

Material of Steam Pipes *Lap welded 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 notation of +LMC. 3.23 (in Red) to be made in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 3.23. CL

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.

L. G. Chalcras
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute THU. MAR 29 1923

Assigned + Lmb. 323
C.L.



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