

## REPORT ON MACHINERY

No. 43820

Received at London Office

WED. JUL 16 1924

Date of writing Report 4-7-1924 When handed in at Local Office 7-7-1924 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 26<sup>th</sup> Feb 1923 Last Survey 3<sup>rd</sup> July 1924  
 Reg. Book. S. S. Louisa Rose (Number of Visits 46)  
 Master John Fullerton & Co Built at Fairley By whom built Ross & Duncan, N° 1126 Tons { Gross 1596 Net 955  
 Engines made at Glasgow By whom made do N° 1680-1 When made 1924  
 Boilers made at do By whom made do N° 1680-1 when made 1924  
 Registered Horse Power 180 Owners R. Hughes & Co Port belonging to Liverpool  
 Nom. Horse Power as per Section 28 180 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 19"-31"-50" Length of Stroke 36" Revs. per minute 110 Dia. of Screw shaft 10.54" Material of screw shaft 8  
 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 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 yes Length of stern bush 44" No. 0.5.  
 Dia. of Tunnel shaft 9.6" Dia. of Crank shaft journals 10" Dia. of Crank pin 10.93" Size of Crank web 6.5x19" Dia. of thrust shaft under collars 10.4" Dia. of screw 13'-0" Pitch of Screw 13'-9" No. of Blades 4 State whether moveable no Total surface 59 sq.  
 No. of Feed pumps 2 Diameter of ditto 3 1/4" Stroke 18" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 3 1/4" Stroke 18" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 2 Sizes of Pumps 8" x 5" x 8" DUPLEX No. and size of Suctions connected to both Bilge and Donkey pumps 3-2 1/2"  
 In Engine Room 3-2 1/2" In Holds, &c. FOR HOLD 2-2 3/4", AFT HOLD 2-2 3/4"

No. of Bilge Injections 1 sizes 4 1/2" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"  
 Are all the bilge suction pipes fitted with yes Are the yes 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  
 Are the pipes carried through the bunkers FOR & AFT HOLD 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

Are the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes  
 MILLERS, &c.—(Letter for record 8) Manufacturers of Steel David Brown & Sons L.  
 Total Heating Surface of Boilers 3380 Is Forced Draft fitted no No. and Description of Boilers 2-tubular  
 Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 2-6-24 No. of Certificate 16519  
 Can each boiler be worked separately yes Area of fire grate in each boiler 55 sq. No. and Description of Safety Valves to each boiler yes Area of each valve 6.49" Pressure to which they are adjusted 185 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 3'-10" Mean dia. of boilers 13'-6" Length 10'-9" Material of shell plates 8  
 Thickness 1 1/8" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams J.R.  
 J. seams J.R.D.B.S. Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 7/8" Lap of plates or width of butt straps 16 5/8"  
 Percentages of strength of longitudinal joint 86.4 Working pressure of shell by rules 183 Size of manhole in shell 16" x 12"  
 of compensating ring 31 x 27 x 1 1/8" No. and Description of Furnaces in each boiler 3-tube Material 8 Outside diameter 40 1/8"  
 Length of plain part top 9" Thickness of plates bottom 1 1/8" Description of longitudinal joint weld No. of strengthening rings yes  
 Working pressure of furnace by the rules 207 Combustion chamber plates: Material 8 Thickness: Sides 1 1/16" Back 5/8" Top 1 1/16" Bottom 1 1/16"  
 Length of stays to ditto: Sides 10" x 9" Back 8" x 9" Top 10" x 9" If stays are fitted with nuts or riveted heads yes Working pressure by rules 183  
 Material of stays 8 Area at smallest part 1.73 sq. Area supported by each stay 72 sq. Working pressure by rules 211 End plates in steam space: Material 8 Thickness 1 1/16" Pitch of stays 19" x 17" How are stays secured J.N.L.W. Working pressure by rules 181 Material of stays 8  
 Area at smallest part 5.56 sq. Area supported by each stay 323 sq. Working pressure by rules 189 Material of Front plates at bottom 8  
 Thickness 7/8" Material of Lower back plate 8 Thickness 1 1/16" Greatest pitch of stays 14 1/4" x 9" Working pressure of plate by rules 189  
 Diameter of tubes 3 1/2" Pitch of tubes 4 5/8" Material of tube plates 8 Thickness: Front 7/8" Back 25/32" Mean pitch of stays 10.69"  
 Distance across wide water spaces 14 1/4" Working pressures by rules 183 Girders to Chamber tops: Material 8 Depth and thickness of girder at centre 8" x 1 3/4" Length as per rule 31 19/32" Distance apart 9" Number and pitch of stays in each 2-10"  
 Working pressure by rules 186 Steam dome: description of joint to shell yes % of strength of joint yes  
 Material 8 Thickness of shell plates 8 Material 8 Description of longitudinal joint yes Diam. of rivet holes yes  
 No. of rivets yes Working pressure of shell by rules yes Crown plates yes Thickness yes How stayed yes

SUPERHEATER. Type none Date of Approval of Plan yes Tested by Hydraulic Pressure to yes

Date of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes

Diameter of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes

008641-008647-0237



IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:—As per Rules, also 1 set air pump valves, 1 set valves for donkey feed pump, 6 boiler tubes, 12 condenser tubes, 1 set fire bars, 2 valves for boiler checks, 1 spring for safety valves.

The foregoing is a correct description,

Ross Duncan

Manufacturer.

Dates of Survey while building { During progress of work in shops - 1923 Feb 26 Mar 5 7 14 22 26 Apr 5 9 16 23 26 30 May 7 11 15 Jun 12 25 July 3 28 Aug 15 Sep 3 19 Oct 9 23  
During erection on board vessel - Nov 27 1924 Mar 7 26 28 Apr 3 14 17 22 24 May 1 2 6 12 16 22 Jun 2 6 11 16 20 25 July 3  
Total No. of visits 46

Is the approved plan of main boiler forwarded herewith

yes

Dates of Examination of principal parts—Cylinders 23-10-22 Slides 3-4-24 Covers 2-4-24 Pistons 3-4-24 Rods 3-4-24  
Connecting rods 3-4-24 Crank shaft 26-3-24 Thrust shaft 26-3-24 Tunnel shafts ✓ Screw shaft 3-4-24 Propeller 3-4-24  
Stern tube 26-3-24 Steam pipes tested 12-6-24 Engine and boiler seatings 22-4-24 Engines holding down bolts 16-6-24  
Completion of pumping arrangements 25-6-24 Boilers fixed 16-6-24 Engines tried under steam 3-7-24  
Completion of fitting sea connections 22-4-24 Stern tube 22-4-24 Screw shaft and propeller 22-4-24  
Main boiler safety valves adjusted 25-6-24 Thickness of adjusting washers Full for 1 3/32" Start for 1 1/32"  
Material of Crank shaft S Identification Mark on Do. HC. Material of Thrust shaft S Identification Mark on Do. HC.  
Material of Tunnel shafts S Identification Marks on Do. ✓ Material of Screw shafts S Identification Marks on Do. HC  
Material of Steam Pipes 6 tubes ✓ Test pressure 360 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 no ✓ 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 in accordance with the Society's Rules and requirements, and approved plans, the materials and workmanship are good, the machinery has been satisfactorily fitted on board, and tried under steam, and in my opinion is eligible for the record + L.M.C. 7-24.

It is submitted that this vessel is eligible for THE RECORD. + LMC 7-24. CL.

J. D. 23/7/24

The amount of Entry Fee ... £ 3 : : When applied for, 14/7/24  
Special ... £ 42 : :  
Donkey Boiler Fee ... £ 49-15 : :  
Travelling Expenses (if any) £ : :  
When received, 14/7/24

Committee's Minute

Assigned + LMC 7-24

CERTIFICATE WRITTEN 31-7-24

Jas. Cairns

Engineer Surveyor to Lloyd's Register of Shipping.



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