

Rpt. 4. **REPORT ON MACHINERY** No. 43820

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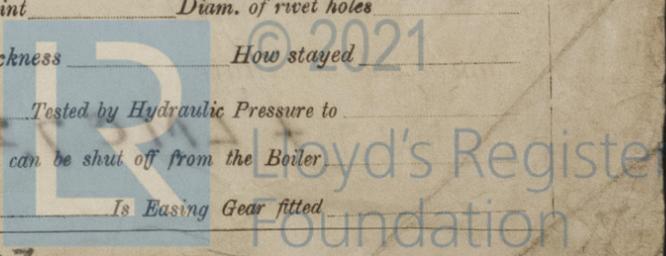
Date of writing Report 4-7-24 When handed in at Local Office 7-7-24 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 26th Feb 1923 Last Survey 3rd July 1924
Reg. Book. on the S. S. Louisa Rosei (Number of Visits 46)
Master Built at Paisley By whom built John Fullerton & Co. N^o 274 When built 1924
Engines made at Glasgow By whom made Ross & Duncan, N^o 1126 when made 1924.
Boilers made at do By whom made do N^o 1680-1 when made 1924.
Registered Horse Power Owners R. Hughes & Co. Port belonging to Liverpool
Nom. Horse Power as per Section 28 780 199 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 as per rule 10.54" as fitted 11" Material of screw shaft S.
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 yes If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 44" to 0.5.
Dia. of Tunnel shaft as per rule 9.6 as fitted none Dia. of Crank shaft journals as per rule 10" as fitted 10.93" Dia. of Crank pin 10 3/8" Size of Crank web 6.5" x 19 1/2" Dia. of thrust shaft under collars 10 1/2" 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 FEED 8" x 5" x 8" DUPLEX. No. and size of Suctions connected to both Bilge and Donkey pumps
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 of size yes 3 1/2"
Are all the bilge suction pipes fitted with valves yes Are the valves 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 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
That pipes are 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
Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel David Colville & Sons L^{td}.
Total Heating Surface of Boilers 3380 Is Forced Draft fitted no No. and Description of Boilers 2 Multitubular
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 pair Spring loaded Area of each valve 6.49 sq. Pressure to which they are adjusted 185 Are they fitted with easing gear yes
Greatest distance between boilers or uptakes and bunkers or woodwork 3'-10" Min. dia. of boilers 13'-6" Length 10'-9" Material of shell plates S.
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.
Long. seams J.R.D.B.S. Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 7 7/8" Lap of plates or width of butt straps 16 5/8"
Percentages of strength of longitudinal joint rivets 86.4 plate 85.7 Working pressure of shell by rules 183 Size of manhole in shell 16" x 12"
Diameter of compensating ring 31" x 27" x 1 1/8" No. and Description of Furnaces in each boiler 3. Iron Material S. Outside diameter 40 1/8"
Length of plain part top bottom Thickness of plates crown 9 1/16" bottom Description of longitudinal joint weld No. of strengthening rings
Working pressure of furnace by the rules 207 Combustion chamber plates: Material S. Thickness: Sides 11/16" Back 5/8" Top 11/16" Bottom 11/16"
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 no Working pressure by rules 183
Material of stays S. 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 S. 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 S.
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 S.
Thickness 7/8" Material of Lower back plate S. Thickness 13/16" Greatest pitch of stays 14 1/2" 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 S. Thickness: Front 7/8" Back 25/32" Mean pitch of stays 10.69"
Distance across wide water spaces 14 1/2" Working pressures by rules 183 Girders to Chamber tops: Material S. Depth and thickness of girder at centre 8" x 3 1/4" 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 none % of strength of joint
Material Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
Material of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type none 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



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 2 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 **17-6-24** 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 13/32" Start for 11/32"**

Material of Crank shaft **S** Identification Mark on Do. **JHC** Material of Thrust shaft **S** Identification Mark on Do. **JHC**

Material of Tunnel shafts **S** Identification Marks on Do. Material of Screw shafts **S** Identification Marks on Do. **JHC**

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.

JAC 23/7/24 *JAC*

Jas Cairns
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ...	£ 3	When applied for,	
Special ...	£ 42	14/7/24	
Donkey Boiler Fee ...	£ 49-15		
Travelling Expenses (if any) £		When received,	
		23/7/24	

Committee's Minute **GLASGOW**

Assigned **+ LMC 7-24**

CERTIFICATE WRITTEN 31-7-24



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Certificate (if required) to be sent to Glasgow

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