

REPORT ON MACHINERY.

No. 42817

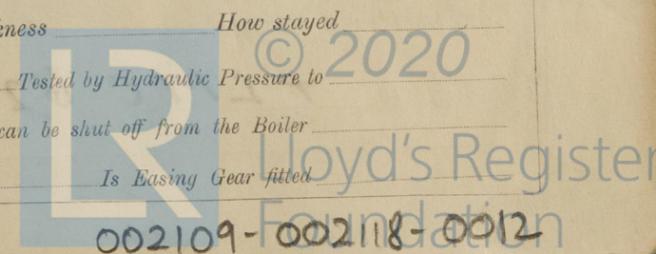
Received at London Office

Date of writing Report 12th June 1923 When handed in at Local Office 15th June 1923 Port of Glasgow WED. JUN. 20 1923
 No. in Survey held at Paisley Date, First Survey 14th Dec. 1922 Last Survey 1st June 1923
 Reg. Book. 80869 on the Steel screw steamer "SAINT ORAN" (Number of Visits 15) Tons { Gross 237
 Master Bowling Built at Bowling By whom built Scott & Sons (N° 292) When built 1923
 Engines made at Paisley By whom made Fishers, Ltd. (N° 227) when made 1923
 Boilers made at Glasgow By whom made Smith & B. & S. Coy. (N° 1785) when made 1923
 Registered Horse Power _____ Owners J. & A. Gardner & Co. Ltd. Port belonging to Glasgow
 Nom. Horse Power as per Section 28 55 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Compound surface condensing No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 14" + 30" Length of Stroke 24" Revs. per minute 104 Dia. of Screw shaft as per rule 6.7" / as fitted 7 3/8" 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 no 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 2' 5 1/2"
 Dia. of Tunnel shaft as per rule 6.26" / as fitted none Dia. of Crank shaft journals as per rule 6.57" / as fitted 6.78" Dia. of Crank pin 6 7/8" Size of Crank webs 13" x 4 3/4" Dia. of thrust shaft under collars 6 1/16" Dia. of screw 7'-0" Pitch of Screw 11'-6" No. of Blades 4 State whether moneable no Total surface 20.75 ft. 2
 No. of Feed pumps one Diameter of ditto 2 1/4" Stroke 10 1/2" Can one be overhauled while the other is at work yes
 No. of Bilge pumps one Diameter of ditto 2 1/4" Stroke 10 1/2" Can one be overhauled while the other is at work yes
 No. of Donkey Engines one Sizes of Pumps 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps in Engine Room four @ 2" In Holds, &c. two @ 2"
 No. of Bilge Injections one sizes 3" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes: 2"
 Are all the bilge suction pipes fitted with med. boxes yes Are the med. boxes 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
 What pipes are carried through the bunkers 2 Hold suction: 1 Feed Tank How are they protected Wood casings
 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 yes worked from _____

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____
 Total Heating Surface of Boilers 1076 ft. 2 Is Forced Draft fitted no No. and Description of Boilers 1 - cylindrical 1 1/2 return tube
 Working Pressure 135 lbs. Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____
 Can each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of Safety Valves to each boiler 2: Direct spring Area of each valve 4.9 ins. 2 Pressure to which they are adjusted 140 lbs. / in. 2 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork well clear Mean dia. of boilers _____ Length of shell plates _____ 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 _____ Lay of plates or width of butt straps _____
 Per centages of strength of longitudinal joint _____ 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 _____ Thickness of plates _____ 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 _____ or riveted heads _____ Working pressure by rules _____ End plates in steam space: _____
 Material of stays _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of stays _____
 Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of Front plates at bottom _____
 Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Working pressure of plate by rules _____
 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 _____ Steam dome: description of joint to shell _____ % 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 _____



IS A DONKEY BOILER FITTED?

NO

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:-

- 2 - Connecting rod top-end bolts & nuts: ✓
- 2 - Connecting rod bottom-end bolts & nuts: ✓
- 2 - Main bearing bolts & nuts: ✓
- One set - Coupling bolts & nuts: ✓
- One set - Feed pump valves: ✓
- One set - Bilge pump valves: ✓
- One set - Piston springs; Quantity assorted bolts & nuts: iron of 1 ✓

The foregoing is a correct description,

FISHERS LIMITED.

Atkinson Fisher

MANAGING DIRECTOR

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1922 Dec 14-27 1923 Jan 15-22 Feb 7-22 Mar 7-26 Apr 16-27 May 4-8 17-28 June 15
 During erection on board vessel ---
 Total No. of visits 15

Is the approved plan of main boiler forwarded herewith? (Already sent. No. 42563)

Is the approved plan of main boiler forwarded herewith? " " " donkey " " " ✓

Dates of Examination of principal parts: Cylinders 15-1-23 Slides 15-1-23 Covers 27-12-22 Pistons 15-1-23 Rods 15-1-23
 Connecting rods 22-1-23 Crank shaft 7-3-23 Thrust shaft 16-4-23 Tunnel shafts None Screw shaft 16-4-23 Propeller 7-3-23
 Stern tube 7-3-23 Steam pipes tested 28-5-23 Engine and boiler seatings 8-5-23 Engines holding down bolts 17-5-23
 Completion of pumping arrangements 1-6-23 Boilers fixed 1-6-23 Engines tried under steam 1-6-23
 Completion of fitting sea connections 4-5-23 Stern tube 1-5-23 / 4-5-23 Screw shaft and propeller 4-5-23
 Main boiler safety valves adjusted 1-6-23 Thickness of adjusting washers 1/4" P. 1/4" S.
 Material of Crank shaft steel Identification Mark on Do. LLOYD'S 930 6-2-23 G.S.C.
 Material of Thrust shaft steel Identification Mark on Do. LLOYD'S 939 16-4-23 G.S.C.
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts N. Iron Identification Marks on Do. LLOYD'S 939 16-4-23 G.S.C.
 Material of Steam Pipes S.D. Copper ✓ Test pressure 270 lbs./in² ✓
 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. and the materials used in accordance with the rules: These engines have been built under Special Survey. The materials & workmanship are good: along with the Main Boiler (Gls. Rpt. 42563) they have been fitted on board and tried under steam with satisfactory results.

It is submitted that this vessel's machinery be classed in the Register Book with notations
 L.M.C. 6, 23 & T.S.-CL.

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.23. CL.

J.D. Boyle
 21/6/23

J. D. Boyle
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 2 : - :
 Special ... £ 9 : - : 19.6.23
 Donkey Boiler Fee ... £ ✓ :
 Travelling Expenses (if any) £ ✓ :
 When applied for, 19.6.23
 When received, 21.6.23

Committee's Minute GLASGOW 19 JUN 1923

Assigned + LMC 6, 23

CERTIFICATE WRITTEN 1/8/23 (dated 20/6/23)



Certificate (if required) to be sent to Glasgow

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