

REPORT ON MACHINERY.

No. 84592

Received at London Office 23 AUG 1921

Date of writing Report **23 AUG 1921** When handed in at Local Office **23 AUG 1921** Port of **Spanish London**
 No. in Survey held at **Great Yarmouth** Date, First Survey **Oct 8th 1920** Last Survey **Aug 18th 1921**
 Reg. Book. on the **S.S. "Glen Mary"** (Number of Visits **18**) Tons { Gross Net
 Master Built at **Great Yarmouth** By whom built **Messrs. G. & H. Ltd.** When built **1921**
 Engines made at **Great Yarmouth** By whom made **Messrs. G. & H. Ltd.** when made **1921**
 Boilers made at **Stockton** By whom made **Messrs. Riley Bros.** when made **1921**
 Registered Horse Power Owners **Messrs. Wilson Bros. Bobbin & Co. Ltd.** Port belonging to **Liverpool**
 Nom. Horse Power as per Section 28 **83** Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines **Triple expansion** No. of Cylinders **3** No. of Cranks **3**
 Dia. of Cylinders **13", 21" and 35"** Length of Stroke **24"** Revs. per minute **110** Dia. of Screw shaft **7 1/2"** Material of screw shaft **Steel**
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight in the propeller boss
 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
 Dia. of Tunnel shaft **6 5/8"** Dia. of Crank shaft journals **6 5/8"** Dia. of Crank pin **6 5/8"** Size of Crank webs **5" x 13 1/2"** Dia. of thrust shaft under collars **6 5/8"** Dia. of screw **9-2"** Pitch of Screw **11 1/2"** No. of Blades **4** State whether moveable Total surface **13 1/2"**
 No. of Feed pumps **one** Diameter of ditto **2 1/2"** Stroke **12"** Can one be overhauled while the other is at work
 No. of Bilge pumps **one** Diameter of ditto **2 1/2"** Stroke **12"** Can one be overhauled while the other is at work
 No. of Donkey Engines **one** Sizes of Pumps **6 1/2" x 4" x 6"** No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room **Two 2" dia.** In Holds, &c. **Hold, Three 2" dia. one 2"**
 No. of Bilge Injections **one** sizes **4"** Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size **Yes, 2" dia.**
 Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible
 Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks **Both**
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates 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 Are the Blow Off Cocks fitted with a spigot and brass covering plate
 What pipes are carried through the bunkers **Bilge suction.** How are they protected **Steel plates.**
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record **S.**) Manufacturers of Steel
 Total Heating Surface of Boilers **1540** Is Forced Draft fitted No. and Description of Boilers **One, Single ended.**
 Working Pressure **180 lb.** Tested by hydraulic pressure to **390 lb.** Date of test **29. 4. 21** No. of Certificate **6224**
 Can each boiler be worked separately Area of fire grate **46 1/2 sq. ft.** No. and Description of Safety Valves to each boiler **2. Spring loaded** Area of each valve **7.06 sq. in.** Pressure to which they are adjusted **183 lb.** Are they fitted with easing gear
 Smallest distance between boilers or uptakes and bunkers or woodwork **About 5 ft.** Mean dia. of boilers Length 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 Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint plate 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 top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 bottom Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 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 " " " " " "
- 2 main bearing bolts
- 1 set coupling bolts
- 1 set gun + hinge pop valves.
- A quantity of assorted bolts & nuts from various sizes.

The foregoing is a correct description,

DRABTREE & CO. LTD

J. A. Chamberlain

Manufacturer.

Dates of Survey while building

During progress of work in shops - - During erection on board vessel - - - Total No. of visits	} 1920: Oct 8. 26 Nov 4. 18. 29 Dec 7. 16 May 11. 25 June 7. 24. 29 Aug 17. 18 18	} 1921: Jan 5 Feb 10 Apr 14. 28		

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 8-10-20 26-10-20 4-11-20 10-11-20 Slides 4-11-20 Covers 8-10-20 4-11-20 Pistons 16-12-20 Rods 26-10-20 Connecting rods 6-1-21 Crank shaft Thrust shaft 18-11-20 7-12-20 Tunnel shafts ✓ Screw shaft 18-11-20 29-11-20 Propeller 14-4-21 28-6-21 Stern tube 5-1-21 Steam pipes tested At Hull. Engine and boiler seatings 25-5-21 Engines holding down bolts 7-6-21 Completion of pumping arrangements 18-8-21 Boilers fired 25-5-21 Engines tried under steam 18-8-21 Completion of fitting sea connections 28-4-21 Stern tube 28-4-21 Screw shaft and propeller 28-4-21 Main boiler safety valves adjusted 18-8-21 Thickness of adjusting washers Part 4 1/2" Star 4 1/2" Material of Crank shaft Steel Identification Mark on Do. 5787 E.E.B. Material of Thrust shaft Steel Identification Mark on Do. 164 A.E.F. Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shaft Steel Identification Marks on Do. 166 A.E.F. Material of Steam Pipes Copper Test pressure ✓

Is an installation fitted for burning oil fuel 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. **Constructed under Survey.**
 the materials tested, workmanship good, and together with boiler examined whilst being installed in vessel, the boiler safety valves adjusted to 183 lbs. & with engines tried under working conditions & found satisfactory. & is now eligible in our opinion for the record of + L.M.C. 8-21 in Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8.21. CL.

Reed
24/8/21
A.R.C.

Certificate (if required) to be sent to

The amount of Entry Fee ... £ : : When applied for, 23 AUG 1921
 Special ... £ 13 : 13 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 7 : 7 : 26.8 1921

Committee's Minute
 Assigned + L.M.C. 8.21
 C.L.

MACHINERY ORIGINALLY WRITTEN



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