

REPORT ON MACHINERY.

No. 40301
WED. SEP. 1 1920

Received at London Office

Date of writing Report 30.8.1920 When handed in at Local Office 30.8.1920 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 20 Oct 1919 Last Survey 14th Aug 1920
 Reg. Book. on the S.S. "Eveleen" (Number of Visits 17)
 Master Built at Ardrossan By whom built Cochran & D. D. B. & L. (315) When built 1920
 Engines made at Clydebank By whom made Aitchison Blair & L. (124) when made 1920
 Boilers made at Grunoch By whom made John Kincaid & L. (79) when made 1920
 Registered Horse Power 85.9 86 Owners Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no
 Nom. Horse Power as per Section 28 85.9 86

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 13.21.35 Length of Stroke 24 Revs. per minute 122 Dia. of Screw shaft 7.3/8 Material of screw shaft 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 2'-6 1/8"
 Dia. of Tunnel shaft 6.5 Dia. of Crank shaft journals 6.81 Dia. of Crank pin 6.8 Size of Crank webs 116x128 Dia. of thrust shaft under collars 6.8 Dia. of screw 9'-3" Pitch of Screw 9'-1" No. of Blades 4 State whether moccable no Total surface 29.8
 No. of Feed pumps 2 Diameter of ditto 1 7/8" Stroke 14" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2" Stroke 14" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 6" x 4" x 6" 7" x 8" x 8" Ballast No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3-2" In Holds, &c. 4-2"

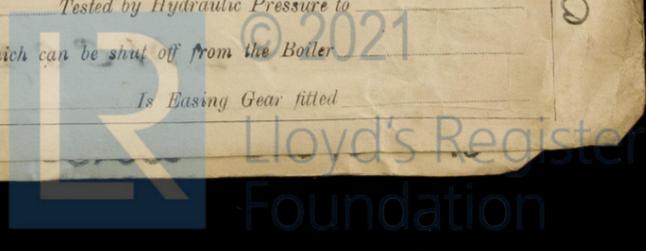
No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size 1-2"
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible no
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves
 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 Forward bilge suction How are they protected Strong 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 no Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Robt. Falconer & Co. Ltd.
 Total Heating Surface of Boilers 1610 Is Forced Draft fitted no No. and Description of Boilers one Single Ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 7.5.20 No. of Certificate 1453
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 51.18 No. and Description of Safety Valves to each boiler 2 Spring Loaded Area of each valve 4.9 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 8'-0" 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 _____ 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 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 _____

If not, state whether, and when, one will be sent
 In a Report also sent on the Hull of the Ship

002085-002093-0209



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *2 each top & bottom end bolts & nuts & main bearings
1 set coupling bolts, 1 set feed & bridge pump valves. Quantity assorted bolts & nuts.
Iron of various sizes.*

The foregoing is a correct description,
MITCHISON, BLAIR LTD.

Arch Blair

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1919 Oct 20, 29, Nov 10, 19, Dec 15 (1920) Jan 13, Feb 2, 12, Mar 2, 12, Jun 7, 24, July 5, 9-28, 30, Aug 14*
During erection on board vessel ---
Total No. of visits *17*

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

Dates of Examination of principal parts—Cylinders *29'10" 15'12" 19* Slides *13'1'20* Covers *13'1'20* Pistons *15'12'19* Rods *15'12'19*
Connecting rods *13'1'20* Crank shaft *13'1'20* Thrust shaft *29'10'19* Tunnel shafts *None* Screw shaft *29'10'19* Propeller *15'12'19*
Stern tube *21'6'20* Steam pipes tested *9'4'20* Engine and boiler seatings *24'6'20* Engines holding down bolts *9'4'20*
Completion of pumping arrangements *13'8'20* Boilers fixed *13'8'20* Engines tried under steam *14'8'20*
Completion of fitting sea connections *24'6'20* Stern tube *24'6'20* Screw shaft and propeller *24'6'20*
Main boiler safety valves adjusted *13'8'20* Thickness of adjusting washers PV $\frac{3}{8}$ low SV $\frac{13}{32}$

Material of Crank shaft *S* Identification Mark on Do. *M 127 13'1'20* Material of Thrust shaft *S* Identification Mark on Do. *M 127 29'10'19*

Material of Tunnel shafts *None* Identification Marks on Do. Material of Screw shafts *S* Identification Marks on Do. *M 10'19*

Material of Steam Pipes *Copper*

Test pressure *360 lbs/sq. in.*

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.)

These engines have been built under Special Survey. The workmanship & materials are good. Engines & Boiler have been well fitted on board, tried under steam and found to work satisfactorily.

The Machinery of this vessel is eligible in our opinion for the record of +L.M.C. 8.20 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD, +L.M.C. 8.20

Roll 2/9/20 J. P. R.

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

Sub. 1.0.0
Eng. Survey 6.9.0
Fitting out 3.4.6
Exp. 2.7.6

The amount of Entry Fee ... £	X	When applied for,
Special ... £	X	19
Donkey Boiler Fee ... £	X	When received,
Travelling Expenses (if any) £	X	27-9-20 and 29-9-20 15-12-20 paid 10-11-20

Committee's Minute

Assigned *+ L M C 8, 20*

GLASGOW
MACHINERY DEPT.
11/11/20



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Committee's Min

Dates of Survey while building: During progress of work in shops ---
During erection on board vessel ---

GENERAL REM

Survey Fee ...
Travelling Expenses

Committee's Min

Assigned TRA