

## REPORT ON MACHINERY.

No. 41876  
WED. APR. 19 1922

Received at London Office

Date of writing Report 13<sup>th</sup> April 1922 When handed in at Local Office 13<sup>th</sup> April 1922 Port of Glasgow  
No. in Survey held at Glasgow Date, First Survey 4th Aug 1920 Last Survey 10<sup>th</sup> April 1922.  
Reg. Book. on the S.S. MAYFIELD (Number of Visits 24)  
Master Built at Glasgow By whom built Jarrold & Co. Ltd. (1470) Tons Gross 642.88  
Engines made at Glasgow By whom made Jarrold & Co. Ltd. (1470) when made 1922 Net 2690  
Boilers made at Glasgow By whom made Barclay Curle & Co. Ltd. when made 1921  
Registered Horse Power Owners The Large Steamships Co. Ltd. (E. J. Brown Mgr.) Port belonging to Dublin.  
Nom. Horse Power as per Section 28 120 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 15" 25 1/2" 41" Length of Stroke 30" Revs. per minute 103 Dia. of Screw shaft as per rule 8 1/2" 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 3' 2 1/2"  
Dia. of Tunnel shaft as per rule 7 1/2" Dia. of Crank shaft journals as per rule 8 1/2" Dia. of Crank pin 9" Size of Crank webs 12 1/2" x 6" Dia. of thrust shaft under  
collars 8 3/4" Dia. of screw 10' 0" Pitch of Screw 11' 6" No. of Blades 4 State whether moveable No Total surface 35 ft<sup>2</sup>  
No. of Feed pumps 2 Diameter of ditto 3" Stroke 15" Can one be overhauled while the other is at work yes  
No. of Bilge pumps 2 Diameter of ditto 3" Stroke 15" Can one be overhauled while the other is at work yes  
No. of Donkey Engines 2 Sizes of Pumps 2 x 6 1/2" x 6" Ballast 4' x 8' x 8" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 2 @ 2 1/2" diam. In Holds, &c. 2 @ 2 1/2" diam.

No. of Bilge Injections 1 sizes 4 1/2" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 1 @ 2 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 None  
Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves & Cocks  
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 None How are they protected  
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 Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Gls. & S. Co., Colville, Spence.

Total Heating Surface of Boilers 21620 ft<sup>2</sup> Is Forced Draft fitted No No. and Description of Boilers 2 Single Ended Horizontal  
Working Pressure 180 lbs. Tested by hydraulic pressure to 320 lbs. Date of test 24/2/21 No. of Certificate 15718  
Can each boiler be worked separately yes Area of fire grate in each boiler 33 ft<sup>2</sup> No. and Description of Safety Valves to  
each boiler 2 spring loaded Area of each valve 3.976 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 4' 0" Mean dia. of boilers 11' 0" Length 10' 0" 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 rivets 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 Thickness of plates bottom  
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 2020  
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 top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bulge valves, a quantity of assorted bolts & nuts, iron of various sizes.

The foregoing is a correct description,

In Glasgow & Co. (1922) Ltd. St. W. Duden

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 1920 Aug 4, Sep 1, 6 Dec 16 (1921) Jan 31, Apr 22, 29 May 20, Jun 3, July 5, Oct 4, 6 Nov 21, 23 (1922) Feb 17, 23  
During erection on board vessel - - - Mar 6, 10, 16, 27 Apr 6, 7, 8, 10  
Total No. of visits 24

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " " ☒

Dates of Examination of principal parts—Cylinders 5.4.21 Slides 5.4.21 Covers 5.4.21 Pistons 5.4.21 Rods 4.10.21  
Connecting rods 4.10.21 Crank shaft 4.10.21 Thrust shaft 4.10.21 Tunnel shafts ☒ Screw shaft 4.10.21 Propeller 25.11.21

Stern tube 14.11.21 Steam pipes tested 17.3.22 Engine and boiler seatings 29.11.21 Engines holding down bolts 16.3.22

Completion of pumping arrangements 27.3.22 Boilers fixed 10.3.22 Engines tried under steam { 27.3.22  
6.4.22  
8.4.22

Completion of fitting sea connections 25.11.21 Stern tube 21.11.21 Screw shaft and propeller 25.11.21

Main boiler safety valves adjusted 27.3.22 Thickness of adjusting washers P.B.L. P 9/32 S 9/32 S.B.L. P 9/16 S 9/32

Material of Crank shaft S Identification Mark on Do. LLOYD'S 1470 4.10.21 S.F.D. Material of Thrust shaft S Identification Mark on Do.

Material of Tunnel shafts ☒ Identification Marks on Do. Material of Screw shafts S Identification Marks on Do.

Material of Steam Pipes S.D. Steel Test pressure 540 lbs/sq. in.

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 yes ☒ If so, state name of vessel S.S. Esomite

General Remarks (State quality of workmanship, opinions as to class, &c.)

The workmanship and materials are good. The Engines and Boilers of this vessel have been built under special survey; they 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. 4.22 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

L.M.C. - 4.22. C.L.

MACHINERY CERTIFICATE

11/3/22

Certified by 23/2/21

19/4/22

The amount of Entry Fee ... £ 3 : 0 : 0

Special ... £ 18 : 0 : 0

Donkey Boiler Fee ... £ : : :

Travelling Expenses (if any) £ : : :

When applied for.

14/4/22

When received.

10/5/22

Committee's Minute

Assigned + LMC 4.22

GLASGOW

18 APR 1922



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