

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

14 DEC 1927

Date of writing Report 7-12-1927 When handed in at Local Office 9-12-1927. Port of Greenock.

No. in Survey held at Port Glasgow. Date, First Survey 22<sup>nd</sup> July 1927 Last Survey 6<sup>th</sup> Dec 1927.  
Reg. Book. on the T. S. S. "MIMIE" (Number of Visits 31)

Built at Port Glasgow By whom built Ferguson Bros (Port Glasgow) Ltd. Yard No. 286. Tons <sup>Gross</sup> 467 <sub>Net</sub> 430. When built 1924.

Engines made at Port Glasgow By whom made Ferguson Bros (Port Glasgow) Ltd. Engine No. 286. when made 1924.

Boilers made at Greenock By whom made J. G. Kincaid & Co Ltd. Boiler No. 149 when made 1924.

Registered Horse Power 58. Owners London, Midland & Scottish Ry. Co. Ltd. Port belonging to London.

Nom. Horse Power as per Rule 58. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

Trade for which Vessel is intended Ferry service, Tilbury to Gravesend.

**ENGINES, &c.**—Description of Engines Twin Compound expansion. Revs. per minute 140.  
Dia. of Cylinders 11"-22" Length of Stroke 16" No. of Cylinders 4 No. of Cranks 4  
Crank shaft, dia. of journals <sup>as per Rule</sup> 4.56" <sub>as fitted</sub> 4.5/8" Crank pin dia. 4 5/8" Crank webs <sup>Mid. length breadth</sup> 9" <sup>Thickness parallel to axis</sup> 3 1/8"  
<sup>Mid. length thickness</sup> 3 3/8" <sup>shrunken</sup> <sup>Thickness around eye-hole</sup> 2 3/16"  
Intermediate Shafts, diameter <sup>as per Rule</sup> 4.35" <sub>as fitted</sub> 4 1/2" Thrust shaft, diameter at collars <sup>as per Rule</sup> 4.56" <sub>as fitted</sub> 4 5/8"

Tube Shafts, diameter <sup>as per Rule</sup> 4.99" <sub>as fitted</sub> 5 1/16" Screw Shaft, diameter <sup>as per Rule</sup> 4.99" <sub>as fitted</sub> 5 1/16" Is the { tube } shaft fitted with a continuous liner { No }  
Bronze Liners, thickness in way of bushes <sup>as per Rule</sup> ✓ Thickness between bushes <sup>as per Rule</sup> ✓ Is the after end of the liner made watertight in the propeller boss ✓  
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓  
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 ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft Yes, Ferguson type Length of Bearing in Stern Bush next to and supporting propeller 2'-0"

Propeller, dia. 5'-4 1/2" Pitch 4'-9" No. of Blades 3 Material C.I. whether Moveable No Total Developed Surface 11 sq. feet  
Feed Pumps worked from the Main Engines, No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓  
Bilge Pumps worked from the Main Engines, No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Feed Pumps { No. and size Two, 6" x 4" x 7" } Pumps connected to the { No. and size Two, 5" x 5" x 6" Duplex }  
{ How driven Direct Steam } Main Bilge Line { How driven Steam }  
Ballast Pumps, No. and size 1-5" x 5" x 6" Duplex Lubricating Oil Pumps, including Spare Pump, No. and size ✓

Are two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3-2"  
In Holds, &c. FOR: 3-2" Crew space, 1-2" Aft, 3-2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-4" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 3/4" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks both  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates Yes Are the Overboard Discharges 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 ✓  
What pipes pass through the deep tanks None Have they been tested as per Rule ✓  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes Is the Shaft Tunnel watertight No Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1322 <sup>sq</sup> Working Pressure 120 LBS.  
Is Forced Draft fitted No No. and Description of Boilers 1 S.B.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers ✓ Donkey Boilers ✓  
(If not state date of approval)  
Superheaters ✓ General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:—  
2 propellers, 2 top end bolts + nuts, 2 bottom end bolts + nuts, 2 main bearing bolts and nuts, 1 set of coupling bolts + nuts, 1 set each of Bilge Feed and Air pump valves + seats, 2 feed check valves.

The foregoing is a correct description,  
FERGUSON BROTHERS (PORT GLASGOW) LTD.

P. Ferguson DIRECTOR.

Manufacturer.



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Lloyd's Register  
Foundation

(1927) July 22 Aug 3 25 29 30 Sept 2 3 6 9 13 16 21 23 Oct 3 13 14 25 27 Nov 2 8 9 11 14 18 21 22 26 28 Dec 1 2 6

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 31

Dates of Examination of principal parts—Cylinders 3-9-27 Slides 13-10-27 Covers 3-9-27

Pistons 16-9-27 Piston Rods 16-9-27 Connecting rods 16-9-27

Crank shaft 30-8-27 Thrust shaft 24-10-27 Intermediate shafts 24-10-27

Tube shaft ✓ Screw shaft 2-11-27 Propeller 22-11-27

Stern tube 8-11-27 Engine and boiler seatings 13-10-27 Engines holding down bolts 18-11-27

Completion of pumping arrangements 6-12-27 Boilers fixed 13-10-27 Engines tried under steam 6-12-27

Main boiler safety valves adjusted 2-12-27 Thickness of adjusting washers P 5/16" S 2 3/4"

Crank shaft material Ingot Steel Identification Mark J.D. N<sup>o</sup> 616 Thrust shaft material Ingot Steel Identification Mark

Intermediate shafts, material Ingot Steel Identification Marks J.D. N<sup>o</sup> 616 2146 Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material Ingot Steel Identification Mark J.D. 616 Steam Pipes, material S. D. Copper Test pressure 300 LBS Date of Test 25-11-27

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 the Rules for carrying and burning oil fuel 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 Rules and approved plans. The materials and workmanship are good. The engines and boilers have been securely fitted on board the vessel, and tried under full power with satisfactory results, and are eligible in my opinion to be classed in the Register Book with record of survey + LMC 12-27.

It is submitted that this vessel is eligible for THE RECORD. + LMC 12. 27. OG.

*J.D.*  
16/12/27  
*J.D. Avey*  
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 2 : 0 : 0 When applied for,  
Special 3/5...<sup>TBS</sup> ... £ 9 : 0 : 0 9th Dec. 1927  
Donkey Boiler Fee ... £ ✓ : : When received,  
Travelling Expenses (if any) £ ✓ : : 14.1. 1928

Committee's Minute GLASGOW 13 DEC 1927

Assigned + LMC 12, 27

CERTIFICATE WRITTEN

18800  
9/12/27

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

