

REPORT ON OIL ENGINE MACHINERY.

No. 48080

13 JUN 1928

Date of writing Report *9th June, 1928* When handed in at Local Office *9th June, 1928* Port of *Glasgow*
Date, First Survey *31st May, 1928* Last Survey *31st May, 1928*

No. in Survey held at *1*
Reg. Book *5667*
Tons *40567* on the *Single* *Twin* *Triple* *Quadruple* Screw vessel **"DELFINA MITRE"**
Tons *2235* Gross *1341* Net

Built at *Glasgow* By whom built *A. & J. Inglis Ltd.* Yard No. *815 P.* When built *1928-5*
Engines made at *do* By whom made *Hallend & Wolff Ltd.* Engine No. *815* When made *1928-5*
Donkey Boilers made at *None* By whom made *do* Boiler No. *—* When made *—*
Brake Horse Power *1400* Owners *Entre Rios Railway Co. Ltd.* Port belonging to *Argentine*
Nom. Horse Power as per Rule *383* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*
Trade for which vessel is intended *Main ferry service on River Parana.*

IL ENGINES, &c. Type of Engines *Diesel, vertical reciprocating* 2 or 4 stroke cycle *4* Single or double acting *Single*
Maximum pressure in cylinders *500 lbs./in.²* Diameter of cylinders *15 3/4 400 mm.* Length of stroke *750 mm.* No. of cylinders *16* No. of cranks *16*
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *556 mm.* Is there a bearing between each crank *Yes*
Revolutions per minute *155* Flywheel dia. *1702 mm.* Weight *1.595 tons* Means of ignition *Compression* Kind of fuel used *Diesel oil.*
Crank Shaft, dia. of journals *as per Rule 254 mm.* Crank pin dia. *260 mm.* Crank Webs *Mid length breadth 500 mm.* Thickness parallel to axis *160 mm.*
Flywheel Shaft, diameter *as per Rule 254 mm.* Intermediate Shafts, diameter *as per Rule 7 1/2"* Thrust Shaft, diameter at collars *as per Rule 7 1/2"*
Tube Shaft, diameter *as per Rule 7 1/2"* Screw Shaft, diameter *as per Rule 17/32"* Is the tube shaft fitted with a continuous liner *Yes*
Bronze Liners, thickness in way of bushes *as per Rule 9/16"* Thickness between bushes *as per Rule 7/16"* Is the after end of the liner made watertight in the propeller boss *Yes*

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *Yes*
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* Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft *Yes: Vickers'*
Propeller, dia. *9'-6"* Pitch *9'-0"* No. of blades *3 (each)* Material *but Steel* whether Moveable *No* Total Developed Surface (each) *27 sq. feet*
Method of reversing Engines *Compressed air* Is a governor or other arrangement fitted to prevent racing of the engine when detached *Yes* Means of lubrication *Direct*
Thickness of cylinder liners *32 x 20 mm.* Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *Water cooled* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *Yes*

Cooling Water Pumps, No. *2 lines, water & 1 line, oil* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *Yes*
Bilge Pumps worked from the Main Engines, No. *None* Diameter *—* Stroke *—* Can one be overhauled while the other is at work *Yes*
Pumps connected to the Main Bilge Line { No. and Size *1 - Bilge - 30 tons/hr.; 1 - General Service - 70 tons/hr.*
How driven *Electric Motors.*

Ballast Pumps, No. and size *—* Lubricating Oil Pumps, including Spare Pump, No. and size *2 - each 30 tons/hr.*
Are two independent means arranged for circulating water through the Oil Cooler *Yes* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size: — In Machinery Spaces *3 @ 3" ; 1 @ 4 1/2"*
In Holds, &c. *1 @ 2 3/4" ; 4 @ 2 1/2" ; 3 @ 2 1/4" ; and 1 @ 2"*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *1 @ 4 1/2"*
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with stram-boxes *Yes* Are the Bilge Suctions in the Machinery Spaces *Yes*
Are all Sea Connections fitted direct on the skin of the ship *Yes* Are they fitted with Valves or Cocks *Yes*
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform 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 *None*
What pipes pass through the bunkers *Yes* How are they protected *Yes*
What pipes pass through the deep tanks *Yes* Have they been tested as per Rule *Yes*

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 *Yes* Is it fitted with a watertight door *Yes* worked from at upper deck level.

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *Yes*
Main Air Compressors, No. *Two* No. of stages *Three* Diameters *500, 445 & 102 mm.* Stroke *250 mm.* Driven by *Main Engines.*
Auxiliary Air Compressors, No. *Two* No. of stages *Three* Diameters *270, 235 & 65 mm.* Stroke *165 mm.* Driven by *Auxiliary Engines.*
Small Auxiliary Air Compressors, No. *One* No. of stages *Two* Diameters *80 & 32 mm.* Stroke *150 mm.* Driven by *Hand.*
Scavenging Air Pumps, No. *—* Diameter *—* Stroke *—* Driven by *—*

Auxiliary Engines crank shafts, diameter *as per Rule 135 mm.* as fitted *145 mm.*

IR RECEIVERS: — Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes, on pipe lines: fusible plugs in reservoirs.*
Can the internal surfaces of the receivers be examined *Yes* What means are provided for cleaning their inner surfaces *Man-holes & loose ends.*
Is there a drain arrangement fitted at the lowest part of each receiver *Yes*
High Pressure Air Receivers, No. *500 & 200* Cubic capacity of each *88 & 37 litres each* Internal diameter *295 mm.* thickness *1 1/8 8 mm.*
Seamless, lap welded or riveted longitudinal joint *Seamless* Material *steel* Range of tensile strength *28-32 tons* Working pressure by Rules *1380 lbs./in.²*
Starting Air Receivers, No. *Two* Total cubic capacity *350 ft.³ each* Internal diameter *5 1/2 10 5/16"* thickness *Shell 1" ends 7/16"*
Seamless, lap welded or riveted longitudinal joint *Riveted* Material *steel* Range of tensile strength *Shell: 28-32 tons* Working pressure by Rules *368 lbs./in.²*

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval) *Yes*

Receivers *Bel. Rpt. 9869* Separate Tanks *Yes*

Donkey Boilers *Yes*

General Pumping Arrangements *Yes*

Oil Fuel Burning Arrangements *None*

SPARE GEAR *As per attached list.*

The foregoing is a correct description,
For HARLAND & WOLFF, LTD.

S. C. Green

Manufacturer.

MANAGER FINNIESTON WORKS

Dates of Survey while building
During progress of work in shops - *1927. Dec 9, 13, 21, 26, 27, 28, 29, 30. 1928. Jan 9, 10, 11, 12, 18, 22, 26, 31. Feb 1, 3, 8, 10, 12, 15, 21, 27, 29. Mar 2, 6, 8, 13, 14, 19, 21, 22, 26, 27. Apr 2, 5, 19. May 2, 9, 14, 21, 25, 29, 31.*
During erection on board vessel - *25, 29, 31.*
Total No. of visits *47.*

Dates of Examination of principal parts—Cylinders *26-12-27 26-12-27 27-12-27 28-12-27* Covers *27-12-27 28-12-27* Pistons *13-3-28* Rods *13-3-28* Connecting rods *27-2-27*
Crank shafts *27-30-12-27* Flywheel shafts *27-30-12-27* Thrust shafts *27-30-12-27* Intermediate shafts *19-3-28* Tube shafts *19-3-28*
Screw shafts *19-3-28* Propellers *2-4-28* Stern tubes *2-3-28* Engine seatings *23-3-28* Engines holding down bolts *3-5-28*
Completion of fitting sea connections *5-4-28* Completion of pumping arrangements *29-5-28* Engines tried under working conditions *29-5-28*

Crank shaft, Material *Steel* Identification Mark *as cranks* Flywheel shaft, Material *as cranks* Identification Mark *as cranks*
Thrust shaft, Material *as cranks* Identification Mark *as cranks* Intermediate shafts, Material *steel* Identification Marks *(2077, 2082, 2077, 2049, 2077, 2049, 2077, 2049)*
Tube shafts Material *Steel* Identification Mark *as cranks* Screw shafts Material *steel* Identification Mark *as cranks*

Is the flash point of the oil to be used over 150° F. *Yes*
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No* If so, have the requirements of the Rules been complied with *Yes*

Is this machinery duplicate of a previous case *No* If so, state name of vessel *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c.) *These Engines have been built under Special Survey in accordance with the rules & the approved plans; the material & workmanship are good; along with the Air Reservoir (Bel. Rpt. 9869 herewith) they have been properly fitted on board and tried under working conditions at sea with satisfactory result.*
This Machinery is eligible, in my opinion &c. to be classed in the Register Book with Notation: L.M. 5, 28; O.G.; Oil Engines.

It is submitted that this vessel is eligible for THE RECORD + LMC 5.28 C.L.

OIL ENGINES. 45C. 5A.
16cy. 15 3/4 - 29 1/2. 383 N.H.P.
25. 19/6/28

The amount of Entry Fee ... £ 5 : - :
Special ... £ 82 : 9/11 :
Donkey Boiler Fee ... £ - : - :
Travelling Expenses (if any) £ - : - :
When applied for, 11 JUN 1928
When received, 11 JUN 1928

Committee's Minute GLASCOW 12 JUN 1928

Assigned + LMC 5.28



© 2021
Lloyd's Register
Foundation