

# REPORT ON OIL ENGINE MACHINERY.

No. 18423

Date of writing Report 25.3.1925 When handed in at Local Office 25.3.1925 Port of Greenock Received at London Office 5 AUG 1925

No. in Survey held at Port Glasgow Date, First Survey 4th December, 1925 Last Survey 13th May 1925

Reg. Book. Single } Screw vessels 2. "LIMERICK" } Tons { Gross  
Twin } } Net  
Triple }

Master \_\_\_\_\_ Built at Port Glasgow. By whom built W<sup>m</sup> Hamilton & Co Yard No. 389 When built 1925.

Engines made at Glasgow. By whom made J. Brown & Co Ltd. Engine No. \_\_\_\_\_ When made \_\_\_\_\_

Donkey Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_

Brake Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

Nom. Horse Power as per Rule \_\_\_\_\_ Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_

**OIL ENGINES, &c.**—Type of Engines Brown-Suber Diesel 2 or 4 stroke cycle \_\_\_\_\_ Single or double acting \_\_\_\_\_

Maximum pressure in cylinders \_\_\_\_\_ No. of cylinders \_\_\_\_\_ No. of cranks \_\_\_\_\_ Diameter of cylinders \_\_\_\_\_

Length of stroke \_\_\_\_\_ Revolutions per minute \_\_\_\_\_ Means of ignition \_\_\_\_\_ Kind of fuel used \_\_\_\_\_

Is there a bearing between each crank \_\_\_\_\_ Span of bearings (Page 92, Section 2, par. 7 of Rules) \_\_\_\_\_

Distance between centres of main bearings \_\_\_\_\_ Is a flywheel fitted \_\_\_\_\_ Diameter of crank shaft journals as per Rule \_\_\_\_\_  
as fitted \_\_\_\_\_

Diameter of crank pins \_\_\_\_\_ Breadth of crank webs as per Rule \_\_\_\_\_ Thickness of ditto as per Rule \_\_\_\_\_  
as fitted \_\_\_\_\_ as fitted \_\_\_\_\_

Diameter of flywheel shaft as per Rule \_\_\_\_\_ Diameter of tunnel shaft as per Rule \_\_\_\_\_ Diameter of thrust shaft as per Rule \_\_\_\_\_  
as fitted \_\_\_\_\_ as fitted \_\_\_\_\_ as fitted \_\_\_\_\_

Diameter of screw shaft as per Rule \_\_\_\_\_ Is the screw shaft fitted with a continuous liner the whole length of the stern tube \_\_\_\_\_  
as fitted \_\_\_\_\_

Is the after end of the liner made watertight 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 \_\_\_\_\_ If without liners, is the shaft arranged to run in oil \_\_\_\_\_

Type of outer gland fitted to stern tube \_\_\_\_\_ Length of stern bush \_\_\_\_\_ Diameter of propeller \_\_\_\_\_

Pitch of propeller \_\_\_\_\_ No. of blades \_\_\_\_\_ state whether moveable \_\_\_\_\_ Total surface \_\_\_\_\_ square feet

Method of reversing \_\_\_\_\_ Is a governor or other arrangement fitted to prevent racing of the engine when declutched \_\_\_\_\_ Thickness of cylinder liners \_\_\_\_\_

Are the cylinders fitted with safety valves \_\_\_\_\_ Means of lubrication \_\_\_\_\_ Are the exhaust pipes and silencers water cooled or lagged with non-conducting material \_\_\_\_\_

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine \_\_\_\_\_

No. of cooling water pumps \_\_\_\_\_ Is the sea suction provided with an efficient strainer which can be cleared within the vessel \_\_\_\_\_

No. of bilge pumps fitted to the main engines \_\_\_\_\_ Diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_

Can one be overhauled while the other is at work \_\_\_\_\_ No. of auxiliary pumps connected to the main bilge lines \_\_\_\_\_ How driven \_\_\_\_\_

Sizes of pumps \_\_\_\_\_ No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room \_\_\_\_\_

and in holds, etc. \_\_\_\_\_ No. of ballast pumps \_\_\_\_\_ How driven \_\_\_\_\_ Sizes of pumps \_\_\_\_\_

Is the ballast pump fitted with a direct suction from the engine room bilges \_\_\_\_\_ State size \_\_\_\_\_ Is a separate auxiliary pump suction fitted in \_\_\_\_\_

Engine Room and size \_\_\_\_\_ 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 Yes.

Are they valves or cocks Yes. Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates Yes.

Are the discharge pipes above or below the deep water line \_\_\_\_\_ Are they each fitted with a discharge valve always accessible on the plating of the vessel Yes.

Are all pipes, cocks, valves and pumps in connection with the machinery 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 \_\_\_\_\_ If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork \_\_\_\_\_

No. of main air compressors \_\_\_\_\_ No. of stages \_\_\_\_\_ Diameters \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_

No. of auxiliary air compressors \_\_\_\_\_ No. of stages \_\_\_\_\_ Diameters \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_

No. of small auxiliary air compressors \_\_\_\_\_ No. of stages \_\_\_\_\_ Diameters \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_

No. of scavenging air pumps \_\_\_\_\_ Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_

Diameter of auxiliary Diesel Engine crank shafts as per Rule \_\_\_\_\_ Are the air compressors and their coolers made so as to be easy of access \_\_\_\_\_  
as fitted \_\_\_\_\_

**AIR RECEIVERS:—**No. of high pressure air receivers \_\_\_\_\_ Internal diameter \_\_\_\_\_ Cubic capacity of each \_\_\_\_\_

material \_\_\_\_\_ Seamless, lap welded or riveted longitudinal joint \_\_\_\_\_ Range of tensile strength \_\_\_\_\_

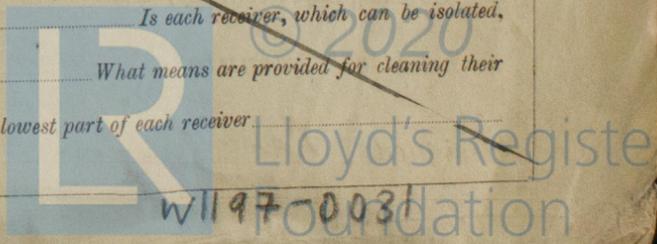
thickness \_\_\_\_\_ working pressure by Rules \_\_\_\_\_ No. of starting air receivers \_\_\_\_\_ Internal diameter \_\_\_\_\_

Total cubic capacity \_\_\_\_\_ Material \_\_\_\_\_ Seamless, lap welded or riveted longitudinal joint \_\_\_\_\_

Range of tensile strength \_\_\_\_\_ thickness \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Is each receiver, which can be isolated, fitted with a safety valve as per Rule \_\_\_\_\_ What means are provided for cleaning their inner surfaces \_\_\_\_\_

Can the internal surfaces of the receivers be examined \_\_\_\_\_

Is there a drain arrangement fitted at the lowest part of each receiver \_\_\_\_\_



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

| DESCRIPTION.                    | DATE OF TEST. | WORKING PRESSURE. | TEST PRESSURE. | STAMPED. | REMARKS. |
|---------------------------------|---------------|-------------------|----------------|----------|----------|
| ENGINE CYLINDERS .....          |               |                   |                |          |          |
| " " COVERS .....                |               |                   |                |          |          |
| " " JACKETS.....                |               |                   |                |          |          |
| " " PISTON WATER PASSAGES.....  |               |                   |                |          |          |
| MAIN COMPRESSORS—1st STAGE..... |               |                   |                |          |          |
| " 2nd " .....                   |               |                   |                |          |          |
| " 3rd " .....                   |               |                   |                |          |          |
| AIR RECEIVERS—STARTING .....    |               |                   |                |          |          |
| " INJECTION .....               |               |                   |                |          |          |
| AIR PIPES .....                 |               |                   |                |          |          |
| FUEL PIPES .....                |               |                   |                |          |          |
| FUEL PUMPS .....                |               |                   |                |          |          |
| SILENCER .....                  |               |                   |                |          |          |
| " WATER JACKET .....            |               |                   |                |          |          |
| SEPARATE FUEL TANKS .....       |               |                   |                |          |          |

PLANS. Are approved plans forwarded herewith for shafting Receivers Separate Tanks  
(If not, state date of approval)

SPARE GEAR

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - (1924) Dec. 4 (1925) Jan 13-16 Feb 5-27 Mar 9-10 May 13.  
During erection on board vessel - - -  
Total No. of visits 8

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods  
Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube Engine seatings 9/3/25.  
Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions  
Completion of fitting sea connections: 10/3/25 Stern tube 10/3/25 24/2/25 Screw shaft and propeller ✓  
Material of crank shaft Identification Mark on Do. Material of thrust shaft Identification Mark on Do.  
Material of tunnel shafts Identification Marks on Do. Material of screw shafts Identification Marks on Do.  
Is the flash point of the oil to be used over 150° F. ?

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.) The engine seating and auxiliary boiler seatings, and sea connections and stern tubes have been securely fitted on board the vessel. The heating coils in the double bottom oil fuel tanks have been tested by hydraulic pressure to 200 lbs. The vessel has now left for Glasgow where the machinery will be fitted on board. Glasgow Surveyors notified.

20/3/25

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

The amount of Entry Fee ... £ : : When applied for,  
Special ... £ : : 19  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : : 19

J. Avey  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 4-AUG 1925

Assigned See Glasgow Rpt No 44830 JLB



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