

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 95710

Received at London Office 11 NOV 1930

Date of writing Report 11 NOV 1930, Port of London

No. in Survey held at Newbury Date, First Survey 28th April Last Survey 9th Oct 1930
Number of Visits six

on the Single Screw vessel M.V. ASSIDUITY Tons ^{Gross} 350 _{Net} 186
Built at Greenock By whom built Messrs. Geo. Brown & Co. Ltd. Yard No. 174 When built 1930
Engines made at Newbury By whom made Messrs. Platt & Sons Ltd. Engine No. 608 When made 1930
Donkey Boilers made at Greenock By whom made Greenock Boiler No. When made
Brake Horse Power 250 / 275 Owners Fredrick T. Everard & Co. Port belonging to London
Nom. Horse Power as per Rule 154 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

Trade for which vessel is intended 13 3/16 - 15 3/8
Type of Engines Heavy Oil 2 or 4 stroke cycle 2 Single or double acting S.A.
Maximum pressure in cylinders 450 lbs/sq. in. Diameter of cylinders 335 mm Length of stroke 390 mm No. of cylinders 5 No. of cranks 5
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 425 mm Is there a bearing between each crank yes
Revolutions per minute 300 Flywheel dia. 1050 mm Weight 1 Ton Means of ignition HOT SPARK Kind of fuel used Diesel
Crank Shaft, dia. of journals 174 mm as per Rule 146 mm Crank pin dia. 174 mm Crank Webs Mid. length breadth 205 mm Thickness parallel to axis SOLID FORGED
Crank Shaft, diameter 174 mm as fitted 174 mm Thrust Shaft, diameter at collars 130 mm as per Rule 126 mm as fitted 130 mm

Propeller Shaft, diameter 5 3/8" as per Rule 5 3/8" Is the shaft fitted with a continuous liner yes
Screw Shaft, diameter 45" as per Rule 45" Is the shaft fitted with a continuous liner yes
Bronze Liners, thickness in way of bushes 19/32" as per Rule 19/32" Thickness between bushes 15/32" as per Rule 15/32" Is the after end of the liner made watertight in the stern tube
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

Propeller, dia. 5'-6" Pitch 3'-5" No. of blades 3 Material STEEL whether Moveable No Total Developed Surface 9 1/2 sq. feet
Method of reversing Engines Gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
Thickness of cylinder liners 27 1/2 mm Are the cylinders fitted with safety valves No 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

Cooling Water Pumps, No. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Bilge Pumps worked from the Main Engines, No. one Diameter 130 mm Stroke 120 mm Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line { No. and Size Two - 130 x 120 @ 150 RPM, 125 x 120 @ 150 RPM. How driven One main Engine D.P. and One Aux. Eng.

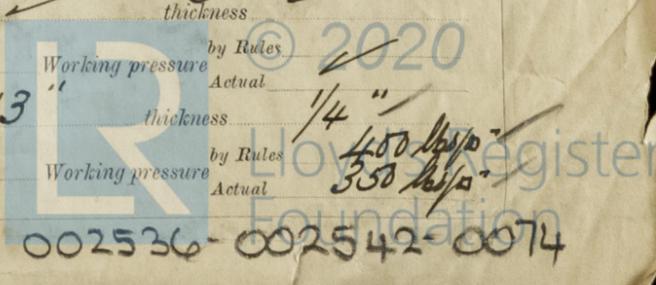
Ballast Pumps, No. and size Ballast on both lines Lubricating Oil Pumps, including Spare Pump, No. and size Handy driven multiple
Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces In Pump Room
In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
Are they fitted with Valves or Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
What pipes pass through the bunkers How are they protected
What pipes pass through the deep tanks 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
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 Is the 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

Main Air Compressors, No. None No. of stages Diameters Stroke Driven by
Auxiliary Air Compressors, No. One No. of stages 2 Diameters Rawell CS 3 1/2 Stroke Driven by Aux. Engine
Small Auxiliary Air Compressors, No. None No. of stages Diameters Stroke Driven by
Scavenging Air Pumps, No. None Diameter Stroke Driven by
Auxiliary Engines crank shafts, diameter 75 mm as per Rule 75 mm as fitted 75 mm

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule
Can the internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver yes
High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

Starting Air Receivers, No. Three Total cubic capacity 13.8 cub. ft. Internal diameter 13" thickness 1/4" Working pressure by Rules 450 lbs/sq. in. Actual 350 lbs/sq. in.
Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 Working pressure by Rules Actual



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only?

PLANS. Are approved plans forwarded herewith for Shafting *April 8^o 1930* Receivers... Separate Tanks...

Donkey Boilers... General Pumping Arrangements... Oil Fuel Burning Arrangements...

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description,

J.M.O. THE LLOYD'S STILL OIL ENGINES LIMITED. Manufacturer.

Dates of Survey while building { During progress of work in shops - April 28, May 9, June 13, July 17, Aug. 14, Sep. 1, 12, Oct 9, Nov. 3, 1930. During erection on board vessel - Total No. of visits 9.

Dates of Examination of principal parts - Cylinders 28-4-30 Covers 13-6-30 Pistons 9-5-30 Rods ✓ Connecting rods 9-5-30

Crank shaft 28-4-30 Flywheel shaft ✓ Thrust shaft 28-4-30 Intermediate shafts ✓ Tube shaft ✓

Screw shaft 1-9-30 Propeller 12-9-30 Stern tube 12-9-30 Engine sealings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material *Best Steel* Identification Mark *LLOYDS 460 MCK 7-3-30* Flywheel shaft, Material *CRANK SHAFT* Identification Mark

Thrust shaft, Material *do* Identification Mark *LLOYDS 3116 RWF 3-2-30* Intermediate shafts, Material Identification Marks *LLOYDS 615*

Tube shaft, Material Identification Mark Screw shaft, Material *Best Steel* Identification Mark *RWF 22730 LR 12-9-30*

Is the flash point of the oil to be used over 150° F.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have 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.)

This machinery, which has been constructed under survey to approved plans & rule requirements, has been despatched to Greenock for installation on board.

The workmanship and materials, so far as can be seen, are good and, in my opinion, the machinery will be eligible for the record of T.M.C. (with date) when it has been fitted aboard the vessel under survey and tried under working conditions.

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 2:0:0 Special 1:15:0 4/5 for survey of main work 19:15:0 Donkey Boiler Fee 1/2 from installation 13:19:0 Travelling Expenses (if any) 7:5:2

When applied for, 11 NOV 1830

When received, 18-2-31

Arthur Palmer Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 2 DEC 1930

Assigned T.M.C. 11.30 subject on G.P.K. 1st 19269

FRI 18 MAR 1931



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