

REPORT ON OIL ENGINE MACHINERY.

No. 918

MAR 11 1939

Received at London Office

Date of writing Report Sept. 7th, 1938 When handed in at Local Office

Port of Cleveland, Ohio.

No. in Survey held at Beloit, Wis.
Reg. Book.Date, First Survey May 11th, Last Survey Aug. 30th, 1938
Number of Visits 9

on the Single
Twin
Triple
Quadruple Screw vessel Marine Industries, Ltd. Hull No. 65
M.V. "PETROLITE"

Built at Sorel, P.Q. By whom built Marine Industries, Ltd. Yard No. - When built 1938
809119

Engines made at Beloit, Wis. By whom made Fairbanks Morse & Co. Engine No. 809140 When made 1938

Donkey Boilers made at - By whom made - Boiler No. - When made -

Brake Horse Power 700 each Owners Imperial Oil Co. Ltd. Port belonging to -

Nom. Horse Power as per Rule 354 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

Trade for which vessel is intended -

OIL ENGINES, &c.—Type of Engines Diesel, solid injection
Positive Scavenging 2 or 4 stroke cycle 2 Single or double acting S

Maximum pressure in cylinders 740# Diameter of cylinders 12" Length of stroke 15" No. of cylinders 7 No. of cranks 7

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 16" Is there a bearing between each crank Yes

Revolutions per minute 400 Flywheel dia. - Weight - Means of ignition Comp. Kind of fuel used 30-32° Be.

Crank Shaft, dia. of journals as per Rule 8" Crank pin dia. 8" Crank Webs Mid. length breadth 11" Thickness parallel to axis 4-7/16"

Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collars as per Rule -

Tube Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule - Is the { tube screw } shaft fitted with a continuous liner {

Bronze Liners, thickness in way of bushes as per Rule - Thickness between bushes as per rule - 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 - If so, state type - Length of Bearing in Stern Bush next to and supporting propeller -

Propeller, dia. - Pitch - No. of blades - Material - whether Moveable - Total Developed Surface - sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Forced Thickness of cylinder liners 1-1/8 to 3/4" 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 -

Cooling Water Pumps, No. Two 4-1/2"x 4-1/2" DA 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 2-1/4" Stroke 4-1/2" Can one be overhauled while the other is at work No

Pumps connected to the Main Bilge Line { No. and Size - How driven - One 140 gall. per min. reversible gear pump.

Ballast Pumps, No. and size - Lubricating Oil Pumps, including Space 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, 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 the Bilge Suctions in the Machinery Spaces

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes -

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges -

Are all Sea Connections fitted direct on the skin of the ship - 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. One No. of stages Single Diameters 8" Stroke 4-1/2" Driven by Main Engine

Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

Scavenging Air Pumps, No. One Diameter 28" Stroke 15" Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule - Position -

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule None

Can the internal surfaces of the receivers be examined and cleaned - Is a drain fitted at the lowest part of each receiver -

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. - Total cubic capacity - Internal diameter - thickness - Working pressure by Rules Actual

Seamless, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules Actual

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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 (If not, state date of approval) -

Receivers -

Separate Tanks -

Donkey Boilers -

General Pumping Arrangements -

Oil Fuel Burning Arrangements -

SPARE GEAR.

Has the spare gear required by the Rules been supplied As per F.M/ Lists 8833 and 6900B - Yes

State the principal additional spare gear supplied See Fairbanks Morse & Co. List 8833 Sheet 17 and List 6900B Sheets 515 to 542, 547 to 557 and 577 to 578, attached to this report.

The foregoing is a correct description,

Fairbanks, Morse & Co. per C. E. Bohman Chief Inspector - X Manufacturer.

Dates of Survey while building { During progress of work in shops - May 11, July 26, 27, 28, Aug. 18, 19, 24, 29, 30, 1938.
During erection on board vessel - -
Total No. of visits 9

Dates of Examination of principal parts - Cylinders 7/26-27 8/19/38 Covers 7/26-27 8/19/38 Pistons 7/26-27 8/19/38 Rods - Connecting rods 7/26-27 8/19/38
Crank shaft 7/26/27/38 Flywheel shaft - Thrust shaft - Intermediate shafts - Tube shaft -
Screw shaft - Propeller - Stern tube - Engine seatings - Engines holding down bolts -
Completion of fitting sea connections - Completion of pumping arrangements - Engines tried under working conditions -
Crank shaft, Material O.H. Steel Identification Mark 3277 5-11-38 GD
Thrust shaft, Material - Identification Mark - Intermediate shafts, Material - Identification Marks -
Tube shaft, Material - Identification Mark - Screw shaft, Material - Identification Mark -

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.)

The above mentioned engines have been built under special survey, and on completion were tested under full and intermediate loads in the shop. The materials and workmanship were found to be sound and efficient. When the engines have been fitted in the vessel and tried out, to the satisfaction of the Society's Surveyors, she will be eligible in my opinion, for record * LMC in the Register Book.

Attached to this report are forging reports Nos. 3277 and 3278.

The amount of Entry Fee .. £ 300.00 : When applied for, 9/16/ 1938
Special ... £ :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ 93.75 : When received, Dec. 9/ 1938

Committee's Minute

NEW YORK MAR 1 1939

Assigned

Transmit to London

Acting Engineer Surveyor to Lloyd's Register of Shipping.

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