

REPORT ON OIL ENGINE MACHINERY.

No. 11493

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Date of writing Report 10 Jun 1929 When handed in at Local Office 10 Port of AMSTERDAM
 No. in Survey held at AMSTERDAM Date, First Survey March 26 1928 Last Survey 10 May 1929
 Reg. Book. Number of Visits 33

on the Single Twin Triple Quadruple Screw vessel WORMS & CO'S YARD NO. 53 Tons ^{Gross} - _{Net} -
 Built at Le Trait By whom built Worms & Co. Yard No. 53 When built -
 Engines made at AMSTERDAM By whom made WERKSPOOR Engine No. - When made 1929
 Monkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power 2 x 1425 Owners Anglo-Saxon Petroleum Co. Port belonging to London
 Nom. Horse Power as per Rule 2 x 1407 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -
 Trade for which vessel is intended -

ENGINES, &c.—Type of Engines Diesel Engine fitted with Büchi system of supercharging ⁴ stroke cycle Single or double acting
 Maximum pressure in cylinders 40 atm. Diameter of cylinders 670 mm Length of stroke 1200 mm No. of cylinders Six No. of cranks 6
 Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge 890 mm Is there a bearing between each crank Yes
 Revolutions per minute 120 Flywheel dia. 2440 Weight 9 tons Means of ignition Self-ignition Kind of fuel used Stiel oil
 Crank Shaft, dia. of journals as per Rule 430% Crank pin dia. 430 mm Crank Webs Mid. length breadth 860% Mid. length thickness 256% Thickness parallel to axis 300% Thickness around eyehole 112%
 Flywheel Shaft, diameter as per Rule 430% as fitted 430% Intermediate Shafts, diameter as per Rule 4 as fitted 4 Thrust Shaft, diameter at collars as per Rule 430% as fitted 310%
 Propeller Shaft, diameter as per Rule 4 as fitted 4 Screw Shaft, diameter as per Rule 4 as fitted 4 Is the tube screw shaft fitted with a continuous liner 4
 Bronze Liners, thickness in way of bushes as per Rule 4 as fitted 4 Thickness between bushes as per rule 4 as fitted 4 Is the after end of the liner made watertight in the propeller boss 4
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner 4
 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 4
 If two liners are fitted, is the shaft lapped or protected between the liners 4 Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft 4
 Length of Bearing in Stern Bush next to and supporting propeller 4

Propeller, dia. 4 Pitch 4 No. of blades 4 Material 4 whether Moveable 4 Total Developed Surface 4 sq. feet
 Method of reversing Engines air reversing Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication 4
 Thickness of cylinder liners 55 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine 4
 Cooling Water Pumps, No. two driven by main engines the sea suction provided with an efficient strainer which can be cleared within the vessel 4
 Pumps worked from the Main Engines, No. 2 Diameter 150 mm Stroke 260 mm Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line 4 No. and Size 4 How driven 4
 Lubricating Oil Pumps, including Spare Pump, No. and size 4
 Are two independent means arranged for circulating water through the Oil Cooler 4 Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 4
 In Holds, &c. 4

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 4
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes 4 Are the Bilge Suctions in the Machinery Spaces 4
 Are they all fitted with Valves or Cocks 4
 Are all Sea Connections fitted direct on the skin of the ship 4 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates 4 Are the Overboard Discharges above or below the deep water line 4
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel 4 Are the Blow Off Cocks fitted with a spigot and brass covering plate 4
 What pipes pass through the bunkers 4 How are they protected 4
 What pipes pass through the deep tanks 4 Have they been tested as per Rule 4

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times 4
 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 4
 Is the Shaft Tunnel watertight 4 Is it fitted with a watertight door 4 worked from 4
 If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork 4
 Main Air Compressors, No. Two No. of stages 2 Diameters 130. 480. 560 Stroke 500 mm Driven by main shaft
 Auxiliary Air Compressors, No. 4 No. of stages 4 Diameters 4 Stroke 4 Driven by 4
 Small Auxiliary Air Compressors, No. 4 No. of stages 4 Diameters 4 Stroke 4 Driven by 4
 Scavenging Air Pumps, No. 4 Diameter 4 Stroke 4 Driven by 4

Auxiliary Engines crank shafts, diameter as per Rule 4 as fitted 4
IR RECEIVERS:—In each receiver, which can be isolated, fitted with a safety valve as per Rule 4
 Can the internal surfaces of the receivers be examined 4 What means are provided for cleaning their inner surfaces 4
 Is there a drain arrangement fitted at the lowest part of each receiver 4
 High Pressure Air Receivers, No. 2 Cubic capacity of each 20 cu ft Internal diameter 470 mm thickness 22.5 mm
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 5000 kg/cm² Working pressure by Rules 150 kg/cm²
 Starting Air Receivers, No. 4 Total cubic capacity 4 Internal diameter 4 thickness 4
 Seamless, lap welded or riveted longitudinal joint 4 Material 4 Range of tensile strength 4 Working pressure by Rules 4

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *Planned*
(If not, state date of approval) *6/11-1928.*

Receivers *in London* Separate Tanks *off*

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *None See Attached list.*

The foregoing is a correct description,

WERKSPOR

Manufacturer.

J. P. C. Ruyt
Dates of Survey while building
During progress of work in shops-- *Jan. 26. April 19. June 13. 26. July 2. 14. 17. 24. 26. Aug. 15. 29. Sept. 17. 22. 28*
During erection on board vessel-- *Nov. 15. 16. 17. 24. 27. Dec. 27. 31. 1928. Jan. 8. 14. 16. 24. Feb. 5. 7. 11. Apr. 1929.*
Total No. of visits *33.*

Dates of Examination of principal parts
Cylinders *13/6 - 24/11* Covers *13/6 - 24/11* Pistons *13/6 17/10* Rods *24/5 - 16/11* Connecting rods *19/4 - 28/9*
Crank shaft *28/9 24/11* Flywheel shaft *28/9 - 24/11* Thrust shaft *17/10 - 7/2* 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 *8/14*
Crank shaft, Material *Steel* Identification Mark *Lloyd's 553. 1st Flywheel shaft, Material *Steel* Identification Mark *or 4983*
Thrust shaft, Material *Steel* Identification Mark *Lloyd's 553. 2nd 466 FK 7/7/28* Intermediate shafts, Material Identification Marks
Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark*

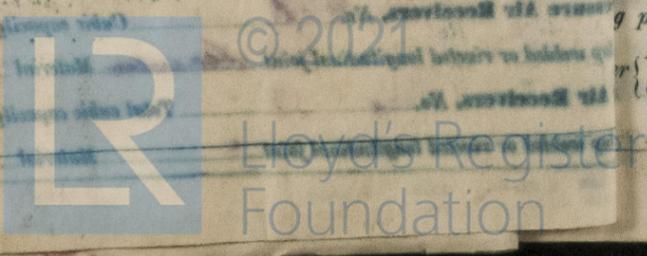
Is the flash point of the oil to be used over 150° F. *Yes.*
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with
Is this machinery duplicate of a previous case If so, state name of vessel *Amstel Rep. N: 11024 1900*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The engines of this vessel have been made in accordance with the Rules, approved plans and Secretary's letter, workmanship good. The engines have been tested under full working conditions on bench. And the whole work satisfactory.

The amount of Entry Fee ... £ *42* :
2/3 Special ... £ *925.60* :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) *36/-* :
When applied for, *19*
When received, *1.7. 1929*

H. M. Beemster
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute
Assigned



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