

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 11375  
14 SEP 1936

Please see also Amsterdam Report No 13723

Received at London Office

Date of writing Report 8/9/36 When handed in at Local Office 11/9/36 Port of Trieste

No. in Survey held at  
Reg. Book.

Date, First Survey May 11

Last Survey Sep 3

1936

84182 on the  
Single  
Twin  
Triple  
Quadruple

Motor vessel Solarium

Number of Visits 10

Tons Gross 6239  
Net 3651

Built at Monfalcone By whom built Cantieri Riun. dell'Adr. Yard No. 1136 When built 1936

Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. 656 When made 1936

Donkey Boilers made at Newcastle By whom made R.W. Hawthorn Leslie &amp; Co. Boiler No. 9790 When made 1935

Brake Horse Power 2800 Owners Anglo-Saxon Petroleum Co. Port belonging to London

Nom. Horse Power as per Rule 377 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended 252 1/2" 55 1/2"

OIL ENGINES, &amp;c.—Type of Engines Werkspoor turbines injection 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 700 lbs Diameter of cylinders 650 mm Length of stroke 1400 mm No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 120 "

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 834 mm Is there a bearing between each crank yes

Revolutions per minute 110 Flywheel dia 2260 mm Weight 6000 Kg. Means of ignition compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule app. 460 mm Crank pin dia. 460 mm Crank Webs Mid. length breadth 870 mm Thickness parallel to axis —

Flywheel Shaft, diameter as per Rule app. 340 mm Intermediate Shafts, diameter as fitted 350 mm Thrust Shaft, diameter at collars as fitted 340 mm

Tube Shaft, diameter as per Rule — Screw Shaft, diameter as fitted 370 mm Is the tube shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule app. 19 1/2 mm Thickness between bushes as fitted 15 mm 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 —

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 no If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 1480 mm

Propeller, dia 4270 mm Pitch 3500 mm No. of blades 4 Material S.M.S. whether Moveable no Total Developed Surface 62 sq. feet

Method of reversing Engines by air Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of lubrication

forced 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 lagged 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. 2 Salt 2 fresh Water 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. 2 Diameter 200 mm Stroke 35 T/h Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line No. and Size 2 rotative 35 T/h each. One general service 8" x 8" x 10" How driven main Motors steam driven

Is the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements —

Ballast Pumps, No. and size One 8" x 8" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 Rotative 40 T/h 1 Duplex 8" x 8" x 10"

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 a 3 1/2" — 1 a 3 1/2" in each C.P. Cofferdam In Pump Room Centr. 2 a 3" Aft 2 a 3"

In Holds, &amp;c. Deep Tank top 3 a 2" — Peak top 2 a 2" Forward Cofferdam

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One a 5"

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

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

Are all Sea Connections fitted direct on the skin of the ship yes with cast steel nuts Are they fitted with Valves or Cocks valves &amp; cocks

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 yes

What pipes pass through the bunkers Suction for Cofferdam at ft. 43-44 How are they protected oil fuel Bunker

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 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 none 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 One by Steam One by Diesel

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 206 x 184 1/2 Stroke 160 mm Driven by One by Steam One by Diesel

Small Auxiliary Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by 2020

Scavenging Air Pumps, No. none Diameter — Stroke — Driven by 1 Diesel Starb. Forward 1 Steam " Aft

Auxiliary Engines crank shafts, diameter as per Rule Please see Report at. No. 2 generators 1 Diesel Port Aft 2 Compensators 1 Diesel " Forward

as fitted 100 mm for Aux. Diesel Position 2 Compensators 1 Diesel " Forward

005512-005517 0086



AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

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. none

Cubic capacity of each —

Internal diameter —

thickness —

Seamless, lap welded or riveted longitudinal joint —

Material —

Range of tensile strength —

Working pressure —

by Rules —

Starting Air Receivers, No. Two

Total cubic capacity 800 cf

Internal diameter 14 9/16 in

thickness 2 1/8 in

Seamless, lap welded or riveted longitudinal joint riveted

Material PM S

Range of tensile strength 30-34 T

Working pressure —

by Rules approved

Actual 350 lbs

IS A DONKEY BOILER FITTED? yes

If so, is a report now forwarded? yes

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

PLANS. Are approved plans forwarded herewith for Shafting Amst. Rep 13723

Receivers 9.4.35

Separate Fuel Tanks 24.7.36

Donkey Boilers Amst. Rep 92836

General Pumping Arrangements 1.11.35

Pumping Arrangements in Machinery Space 1.11.35

Oil Fuel Burning Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

See complete list attached

State the principal additional spare gear supplied —

The foregoing is a correct description,

Manufacturer.

Dates  
of Survey  
while  
building

During progress of  
work in shops —  
During erection on  
board vessel —  
Total No. of visits

See Amsterdam Report No 13723

May 11, June 8, 9, 11, 20, July 13, 20, 23, 28, Aug 11, 19, 21, 26, 27, 28, 29, 31, Sep 1, 2, 3

20

See 3780 Amsterdam Rep 13723

Dates of Examination of principal parts—Cylinders 20.7.36 Covers 20.7.36 Pistons 20.7.36 Rods 20.7.36 Connecting rods 20.7.36

Crank shaft 23.7.36 Flywheel shaft 23.7.36 Thrust shaft 27.7.36 Intermediate shafts 23.7.36 Tube shaft —

Screw shaft 9.6.36 Propeller 11.6.36 Stern tube 9.6.36 Engine seatings 13.7.36 Engines holding down bolts —

Completion of fitting sea connections 20.6.36 Completion of pumping arrangements 2.9.36 Engines tried under working conditions 31.8.36

Crank shaft, Material PM S Identification Mark 4486 GA 11.35 Flywheel shaft, Material PM S Identification Mark 4486 GA 11.35

Thrust shaft, Material PM S Identification Mark 1696 HPB 30.10.35 Intermediate shafts, Material PM S Identification Marks 1634 HPB 30.10.35

Tube shaft, Material — Identification Mark — Screw shaft, Material PM S Identification Mark 1694 HPB 30.10.35

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 Tanker 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 yes If so, state name of vessel M.V. Ona Amst. Rep 13658

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under the  
close survey at Amsterdam and satisfactorily fitted on  
board at Monfalcone. The pumping arrangement, the  
donkey boiler and the oil fuel arrangements have been  
fitted in accordance with the Rules and approved plans.  
The machinery has been tested under full working  
condition and found to be in order and in my opi-  
nion is eligible to have the word of + LMC 9.36

Secretary letter dated 28 July 1936

The Fore Peak Tank is not intended for carriage of Oil Fuel and the  
pumping arrangement has been amended as per enclosed sketch.

The amount of Entry Fee .. £ : : When applied for, 8/9/ 1936  
1/5 Special ... £ : : 1509-  
Donkey Boiler Fee ... £ : : When received, 12.10.1936  
Travelling Expenses (if any) 10/19-  
Holiday fee 200-  
Committee's Minute FRI. 18 SEP 1936

Assigned + LMC 9.36  
20.10.36  
C.L. oil Engines.



Lloyd's Register  
Foundation