

REPORT ON OIL ENGINE MACHINERY.

No. 136988.

29 MAY 1936

Received at London Office

Date of writing Report 26 May 1936 When handed in at Local Office

Port of Amsterdam

Survey held at Amsterdam

Date, First Survey 12 June 1935 Last Survey 13 May 1936

Number of Visits 76

Single
Twin
Triple
Quadruple

Screw vessel

M.V. "MACOMA"

Tons } Gross 2011
Net 4767

Built at Amsterdam By whom built Ned Scheepb. W⁴ Yard No. 235 When built 1936
 Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. When made 1936
 Donkey Boilers made at Amsterdam By whom made N.V. Werkspoor Boiler No. When made 1936
 Brake Horse Power 2000 Owners N.V. Petroleum W⁴ de Carona Port belonging to 's Gravenhage
 Nom. Horse Power as per Rule 502 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which vessel is intended 25-76 558

ENGINES, &c.—Type of Engines Diesel ~~with~~ injection supercharge 4 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 8 No. of cranks 8
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 844 mm Is there a bearing between each crank yes
 Revolutions per minute 110 Flywheel dia. 2800 mm Weight 6000 kg Means of ignition ~~with~~ Kind of fuel used Crude oil
 Crank Shaft, dia. of journals as per Rule 444 mm as fitted 460 mm Crank pin dia. 460 mm Crank Webs Mid. length breadth 870 mm Thickness parallel to axis shrunk Mid. length thickness 290 mm Thickness around eye-hole
 Flywheel Shaft, diameter as per Rule 444 mm as fitted 460 mm Intermediate Shafts, diameter as per Rule approved as fitted 470 mm Thrust Shaft, diameter at collars as per Rule approved as fitted 460 mm
 Propeller Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 345 mm as fitted 400 mm Is the ^{tube} screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule as fitted 20 mm 10.5 mm Thickness between bushes as per rule 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 C.T.

When 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
 When 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
 Length of Bearing in Stern Bush next to and supporting propeller 1440 mm

Propeller, dia. 15'-0" Pitch 12'-0" No. of blades 4 Material Bronze whether Moveable no Total Developed Surface sq. feet
 Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched 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 funnel

Cooling Water Pumps, No. 3 Salt 2 fresh water Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 What special arrangements are made for dealing with cooling water if discharged into bilges overboard

Bilge Pumps worked from the Main Engines, No. 2 Rotary type 35 ton each Stroke Can one be overhauled while the other is at work yes
 Pumps connected to the Main Bilge Line No. and Size 2 rotary pumps 25 hp each one 8"x8"x10" How driven gear driven from M. engine Steam driven

Ballast Pumps, No. and size 1- 8"x8"x10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 rotary 40 tons/hr. steam driven 8"x8"x10"
 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 5- 3 1/2" each 2- 2" fuel pump suction from gutterway In Pump Room 1- 3" aft 1- 2" fore

In Holds, &c. in cofferdam aft 1- 4" in cofferdam fore 3- 2 1/4" in fore hold 3- 2"
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1- 6 1/2" and 1- 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 Are they fitted with Valves or Cocks Valves & 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 none How are they protected
 What pipes pass through the deep tanks counter 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
 Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 206 x 206-104 Stroke 160 mm Driven by steam engine Diesel engine
 Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Bottom each cylinder Diameter 650 mm Stroke 1400 mm Driven by main engine
 Auxiliary Engines crank shafts, diameter as per Rule as fitted 6" Position

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 Actual
 Starting Air Receivers, No. 2 Total cubic capacity 200000 cu feet Internal diameter 1495 mm thickness 21 mm
 Seamless, lap welded or riveted longitudinal joint Riveted Material SMS Range of tensile strength 29-24 ton Working pressure by Rules 375 lbs Actual 350 lbs



IS A DONKEY BOILER FITTED?

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

If so, is a report now forwarded? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *E 15.5.35 & E 30.4.35* Receivers *9.4.35* Separate Tanks *✓*
 (If not, state date of approval)
 Donkey Boilers *E 8.4.35* General Pumping Arrangements *E 16.10.35* Oil Fuel Burning Arrangements *E 26.10.34*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied
No per attached list

The foregoing is a correct description.

WERKSPOR N.V. *[Signature]* Manufacturer.

Dates of Survey while building
 During progress of work in shops - *June 12, 15, 24 July 8, 15, 18, 20, 26 August 14, 16, 17, 22, 26 Sept 2, 9, 16, 17, 18, 20, 23, 25, 26 Oct 1, 2, 3, 11, 16, 17, 18, 21, 22, 23, 28, 31 Nov 4, 6, 7, 13, 22, 29 Dec 2, 4, 5, 6, 10, 13, 18, 19, 31 Jan 2, 13, 20, 29 Feb 3, 6, 7, 24, 25, 27 March 5, 7, 9, 10, 13, 17, 24, 31 April 14, 17, 20 May*
 During erection on board vessel - *Jan 13, 20, 29 Feb 3, 6, 7, 24, 25, 27 March 5, 7, 9, 10, 13, 17, 24, 31 April 14, 17, 20 May*
 Total No. of visits *76*

Dates of Examination of principal parts - Cylinders *26 Aug 26, 28 Oct Covers 26 Aug 26, 28 Oct Pistons 26 July 2 Sept Rods 2 Sept 17 Oct Connecting rods 2 Sept 17 Oct*
 Crank shaft *15 July 16-17 Aug* Flywheel shaft *16-17 Aug* Thrust shaft *24 June 10 Sept* Intermediate shafts *9 Sept 19 Sept* Tube shaft *✓*
 Screw shaft *16 Sept 30 Oct 1922* Propeller *19 Dec 31 Dec* Stern tube *18 Oct 19 Dec* Engine seatings *13 Jan 24 Feb* Engines holding down bolts *24 Feb 27 Oct*

Completion of fitting sea connections *19 Dec* Completion of pumping arrangements *10 March* Engines tried under working conditions *13 May*
 Crank shaft, Material *SMS* Identification Mark *44040 S 2703-2704* Flywheel shaft, Material *SMS* Identification Mark *44040 S 2705*
 Thrust shaft, Material *SMS* Identification Mark *44040 S 403 10-7-35* Intermediate shafts, Material *SMS* Identification Marks *44040 S 406 19-9-35*
 Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *SMS* Identification Mark *44040 S 404 9-5 N° 1692 H.P.B.-30*

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 *oil 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. "RODULA" Ans up 13484 B.*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The Machinery has been constructed under special Survey to approved plans in accordance with the rules & Secretary's letters. Material & workmanship good. She is eligible in my opinion for the approval of the Committee to be recorded in 5-36 in the Society's Register book (with Continuous Survey on request)

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

The amount of Entry Fee *£ 72.-* When applied for. 19
 Special *£ 1200.-* When received, 19
 Donkey Boiler Fee *£ 204.-*
 Travelling Expenses (if any) *£ 40.-*
 Committee's Minute *FRI. 12 JUN 1936*
 Assigned *+ dmb. 5.36 D.P. 1800s*
Orl Inf. Ch

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping.