

## REPORT ON OIL ENGINE MACHINERY.

No. 15293B

Received at London Office

JUN 10 1930

Date of writing Report 1 June 1930 When handed in at Local Office

Port of Amsterdam

No. in Survey held at  
Reg. Book.

Amsterdam

Date, First Survey 18 January 27 Last Survey 24 May 1930

Number of Visits 72

Single  
on the Twin  
Triple  
Quadruple  
Screw vessel

M.V. "CARELIA"

Tons { Gross 2033  
Net 4229Built at Amsterdam By whom built N.V. Nederl. Scheepb. M<sup>te</sup> Yard No. 266 When built 1930

Engines made at Amsterdam By whom made N.V. Werkhoven Engine No. 701 When made 1930

Donkey Boilers made at Amsterdam By whom made N.V. Werkhoven Boiler No. 2707 When made 1930

Brake Horse Power 3300 Owners N.V. Petroleum M<sup>te</sup> ha Corona 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 Ocean trade 257 558

OIL ENGINES, &amp;c.—Type of Engines Diesel Airless inject supercharge 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 8 No. of cranks 8

Mean Indicated Pressure 110 LBS

Span 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. 2260 mm Weight 6000 kg Means of ignition solid inject Kind of fuel used Diesel oil

Crank Shaft, { Solid forged  
Semi-built  
All built dia. of journals as per Rule as per rules Crank pin dia. 460 mm Crank Webs Mid. length breadth 870 mm Thickness parallel to axis shrunk Thickness around eyehole

Flywheel Shaft, diameter as per Rule approved Intermediate Shafts, diameter as per Rule as per rules Thrust Shaft, diameter at collars as per Rule as per rules as fitted 470 mm as fitted 460 mm

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule approved Is the tube screw shaft fitted with a continuous liner yes C.L.

Bronze Liners, thickness in way of bushes as per Rule approved 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 1440 mm

Propeller, dia. 15-0" Pitch No. of blades 4 Material Bronze whether Moveable no Total Developed Surface sq. feet

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

forced Thickness of cylinder liners 5.5 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

Bilge Pumps worked from the Main Engines, No. 2 Rotary 35 ton each Diameter Stroke Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line { No. and Size 2 rotary 35 ton each 1 duplex 8" x 8" x 10"  
How driven gear driven main engine Steam driven

Is the cooling water led to the bilges overboard 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 1- 8" x 8" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1- 8" x 8" x 10" 1 rotary 40 ton/hours

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" and 2- 2" fuel pump suction from gutterway In Pump Room 2- 3"

In Holds, &amp;c. Fore hold 3-2", For. cofferdam 2-2 1/2", aft. cofferdam 1-4"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1- 6 1/2" 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 Valve &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 after cofferdam How are they protected

What pipes pass through the deep tanks none 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. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 206-184 mm Stroke 160 mm Driven by Steam engine Auxiliary Motor

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

When provision is made for first Charging the Air Receivers Air compressor driven by steam engine

Suctioning Air Pumps, No. Bottom end each cyl Diameter 650 mm Stroke 1400 mm Driven by main engine

Auxiliary Engines crank shafts, diameter as per Rule approved No. 2

Have the Auxiliary Engines been constructed under special survey 6" Crank pin 2400 20394 Ruston &amp; Hornby

Is a report sent herewith Herewith attached



# AIR RECEIVERS:—Have they been made under survey

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

Injection 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

Starting Air Receivers, No.

2

Total cubic capacity

200 cub. ft.

Internal diameter

1495 mm

thickness

81 mm

Seamless, lap welded or riveted longitudinal joint

Material

SMS

Range of tensile strength

Working pressure

by Rules

Actual

## IS A DONKEY BOILER FITTED?

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

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

## SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

As per attached list

The foregoing is a correct description,

WERKSPoor N.V.

Manufacturer.

Dates of Survey while building

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

1937. Jan 10. Feb 2. 12. 27. March 24 April 7. 13. 21. 26 June 4. 7. 15 July 19. 23 Aug 5. 20. 30. Sept 20. 26 Oct 1. 8. 9. 21. Nov 3. 4. 8. 13. 15. 17. 23. 26 Dec 1. 16. 17. 24 Jan 14. 17. Feb 1. 4. 8. 10. 12. 18. 21. 23. 24. 25. 26 Feb 20. March 1. 2. 8. 12. 18. 23. 24. 28. 31 April 4. 5. 11. 23. 25. 27. 28. 30 May 3. 4. 10. 13. 19 23. 24 72

Dates of Examination of principal parts—Cylinders Dec 17 Covers Dec 17 Jan 14 Pistons Dec 5 April 5 Rods Dec 5 April 5 Connecting rods 19 Jan 19

Crank shaft 1-20 Oct. Flywheel shaft 1-20 Oct Thrust shaft 20 Sept. Oct 20 Intermediate shafts 21 Feb 26 Tube shaft

Screw shaft 10-23 Feb Propeller 10-23 Feb Stern tube 4 Nov 10 Feb Engine seatings 20 March Engines holding down bolts 30 April 3 May

Completion of fitting sea connections 23 Feb Completion of pumping arrangements 10 May Engines tried under working conditions 24 May

Crank shaft, Material SMS Identification Mark 4110-4111 Flywheel shaft, Material S.M.S Identification Mark R.K. 7.6-37

Thrust shaft, Material S.M.S Identification Mark 4093-4094 Intermediate shafts, Material SMS Identification Marks 4479-4480

Tube shaft, Material L Identification Mark L Screw shaft, Material SMS Identification Mark 4457

Identification Marks on Air Receivers 4316-4317 Separate S. 4450

Lloyd's Reg. 550483

WP. 350483

HPB 12-37

HPB 10-2-30

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 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

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 throughout good

Tested machinery rotation a trial trip on the North Sea & good

She is eligible in my opinion for the approval of the Committee to be recorded

L.M.C. 5-38 oil engine C.I. with continuous survey on request in the Lloyd's

Register book

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

Committee's Minute

Assigned

When applied for,

19

When received,

19

Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register Foundation

[2m, 7.37. Copyable Ink.]