

REPORT ON OIL ENGINE MACHINERY.

No. 15743 B

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19

Port of Amsterdam

Date in Survey held at

Amsterdam

Date, First Survey 9 May 1938

Last Survey 1 August 1939

Book.

Number of Visits 69

on the ~~Single~~ ~~Double~~ ~~Triple~~ ~~Quadruple~~ Screw vessel

"ONDINA"

Tons { Gross 6341
Net 3606

Built at Amsterdam

By whom built Nederlandsche Dok M⁴ Yard No. 71 When built 1939

Engines made at Amsterdam

By whom made N.V. Werkspoor Engine No. 747 When made 1939

Monkey Boilers made at Flushing

By whom made Kon M⁴ De Schelde Boiler No. 1055 When made 1939

Horse Power 2800

Owners N.V. Petroleum M⁴ La Carona Port belonging to Copenhagen

Horse Power as per Rule 377

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Use for which vessel is intended Open Sea Service

ENGINES, &c.—Type of Engines Werkspoor's Supercharged 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

Indicated Pressure 1354 LBS

No. 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 120

Flywheel dia. 2260 mm Weight 6000 kg

Means of ignition Solid injected Kind of fuel used Diesel oil

Crank shaft, { Solid forged
Semi built dia. of journals
All builtas per Rule approved
as fitted 460 mm

Crank pin dia. 460 mm

Mid. length breadth 870 mm
Mid. length thickness 290 mmThickness parallel to axis
Thickness around eye holeWheel Shaft, diameter as per Rule approved
as fitted 240/500Intermediate Shafts, diameter as per Rule approved
as fitted 350 mmThrust Shaft, diameter at collars as per Rule approved
as fitted 340 mmScrew Shaft, diameter as per Rule
as fittedScrew Shaft, diameter as per Rule approved
as fitted 370 mmIs the { tube
screw } shaft fitted with a continuous liner yesBronze Liners, thickness in way of bushes as per Rule approved
as fitted 19.5 mmThickness between bushes as per Rule approved
as fitted 15 mm

Is the after end of the liner made watertight in the

peller 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.

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

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

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 1400 mm

Propeller, dia. 4270 mm Pitch 3580

No. of blades 4

Material Bronze 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 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

Said 2 feet 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 Type 35 km/hour

Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line

No. and Size 2 Rotary 35 km/hour and 1 duplex 8" x 8" x 10"

How driven

Main engines

Steam driven

Is the cooling water led to the bilges

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

Ballast Pumps, No. and size one 8" x 8" x 10"

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 rotary 40 km/hour

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 à 2" gutterway (oil fuel pumps)

In Pump Room 2-3"

In Holds, &c. Cofferdam four aft 1-5" each Fore hold pump room 1 à 2", deep tank 2 à 2", fore hold 3 à 2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

1 à 5" and 1 à 6 1/16"

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

Are the Bilge Suctions in the Machinery Spaces

ed 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 overboard

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 pipe from cofferdam aft

How are they protected heavy steel pipe with valve chest bulkhead

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

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 & 104

Stroke 160 mm

Driven by one by steam engine

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

What provision is made for first Charging the Air Receivers

Air compressor driven by steam engine

Scavenging Air Pumps, No. 2 each bottom end of cyl

Diameter 650

Stroke 1400 mm

Driven by Main engine

Auxiliary Engines crank shafts, diameter

as per Rule approved
as fitted 110 mm

No. 2

Position horizontal, S.B. Position horizontally Port in Motor room

Have the Auxiliary Engines been constructed under special survey

yes

Is a report sent herewith yes

003631-003639-0159

AIR RECEIVERS:—Have they been made under survey *Yes* State No. of Report or Certificate *2205-2206*

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*

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*

Actual *✓*

Starting Air Receivers, No. *2*

Total cubic capacity *200 cubic feet*

Internal diameter *1495 mm*

thickness *21 mm*

Seamless, lap welded or riveted longitudinal joint *welded*

Material *SMS*

Range of tensile strength *29.75-34.6*

Working pressure *by Rules*

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 *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *E 13.5.28*

(If not, state date of approval)

Receivers *3.2.28*

Separate Fuel Tanks *✓*

Donkey Boilers *✓*

General Pumping Arrangements *E 20.4.27*

Pumping Arrangements in Machinery Space *17.6.28*

Oil Fuel Burning Arrangements *5.7.29*

SPARE GEAR.

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

State the principal additional spare gear supplied

As per attached list

The foregoing is a correct description,

WERKSPOR N.V.

Schippers

Manufacturer.

Dates of Survey while building
During progress of work in shops—*May 9-16-17 June 1-9-16-17 July 11-12-13 Nov 15-29-30 Dec 1-2-5-9-29 Jan 4-11-17-19 Feb 16-27 March 4-13-14-16-17-21-22-27-30 April 4-6-17-20-21-22-24-26-29*
During erection on board vessel—*May 5-8-10-12-17-19-25 June 3-9-12-14-19-20-24-27-30 July 3-5-10-17-21-24-26-31 Aug 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30*
Total No. of visits *1*

Dates of Examination of principal parts—Cylinders *Nov 20 Dec 1-2-9-29* Covers *4-19 Jan* Pistons *15 Nov 11 Jan* Rods *11 Feb 22 Apr* Connecting rods *22-24 Mar*

Crank shaft *March 4-13-16* Flywheel shaft *29 Dec 16 March* Thrust shaft *11 July 9 Dec 16 March* Intermediate shafts *16 March* Tube shaft *✓*

Screw shaft *24-26 April* Propeller *24-26 April* Stern tube *16 Feb 30 March* Engine seatings *29 April* Engines holding down bolts *17 May*

Completion of fitting sea connections *17 April* Completion of pumping arrangements *10 July* Engines tried under working conditions *1-8-39*

Crank shaft, Material *SMS* Identification Mark *GA 11-2-28* Flywheel shaft, Material *SMS* Identification Mark *WPH 29-7-28*

Thrust shaft, Material *SMS* Identification Mark *HPB 29-12-28* Intermediate shafts, Material *SMS* Identification Marks *FS 3-2-37 ng. s*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *SMS* Identification Mark *KK 4-4-39*

Identification Marks on Air Receivers *2205-2206*
WPH 29-7-28
5504 BS
WP 3504 BS
KK 2-2-39

Spare Fuel shaft 4503 FS
KK 4-4-39

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 *Panama* 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 *Yes*

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *MR. OPALIA Ans report 15288*

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

The Machinery has been constructed under special survey to approve plans in accordance with the rules & Secretary's letter

Material & workmanship good

Tested machinery whilst on her trial trip on the North sea under full work

Condition found good

She is eligible in our opinion for the approval of the Committee to be recorded & LMC. 8-39 oil engines C.T., with continuous survey on owner's request.

The amount of Entry Fee *£ 60-00* When applied for, *0-0-19.39*

Special *£ 970.60* When received, *29-8-19.39*

Donkey Boiler Fee *£*

Travelling Expenses (if any) *£ 57.25*

Committee's Minute *TUE 15 AUG 1939*

Assigned *+ LMC 8.39 Oil Eng*

DB 180 ll CL



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