

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 13659

27 MAR 1936

Date of writing Report 28 March 1936 When handed in at Local Office

Port of Amsterdam

No. in Survey held at Amsterdam & Fingelo Reg. Book.

Date, First Survey 24 May 1935 Last Survey 10 March 1936

Number of Visits 59.

Single
Double
Triple
QuadrupleMotor
Screw vessel

Yard No. 193

M.V. ~~ETREMA~~

"ETREMA"

Tons Gross 6256
Net 5606

Built at Rotterdam

By whom built N.V. Rotterdam dry dock C^o Yard No. 193 When built 1936

Engines made at Amsterdam

By whom made N.V. Werkspoor

Engine No. When made 1936

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 2800

Owners

Port belonging to

Nom. Horse Power as per Rule 377

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

25 9/16"

55 1/8"

OIL ENGINES, &c.—Type of Engines Diesel and/or injection type 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 700435 Diameter of cylinders 650 mm Length of stroke 1400 mm No. of cylinders 6 No. of cranks 6

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 120 Flywheel dia. 2260 mm Weight 6000 kg Means of ignition helix 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 Mid. length thickness 290 mm Thickness parallel to axis shrunk Thickness around eye hole

Flywheel Shaft, diameter as per Rule approved as fitted 340 mm Intermediate Shafts, diameter as per Rule approved as fitted 350 mm Thrust Shaft, diameter at collar as per Rule approved as fitted 340 mm

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule approved as fitted 370 mm Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule approved as fitted 19.5 mm Thickness between bushes as per rule approved 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

Length of Bearing in Stern Bush next to and supporting propeller 1500 mm

Propeller, dia. 4270 mm Pitch 2500 mm No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 62 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

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 Saltwater & 2 fresh water Is the sea suction provided with an efficient strainer which can be cleared within the vessel

What special arrangements are made for dealing with cooling water if discharged into bilges

Bilge Pumps worked from the Main Engines, No. 2 Diameter 200 mm Stroke 35 mm Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size 2 rotary pumps & 1 general service pump 8" x 8" x 10" How driven main Motor Steam duplex

Ballast Pumps, No. and size 6 no 8" x 8" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One rotary 40 mm 8" x 8" x 10" duplex

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 In Pump Room

In Holds, &c.

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

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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes pass through the bunkers How are they protected

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

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

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 206-184 Stroke 160 mm Driven by 1 by steam engine 1 by diesel motor

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

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position

AIR RECEIVERS:—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

Is a drain fitted at the lowest part of each receiver

High Pressure 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.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules Actual

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded? *Approved 8-4-25*

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

PLANS. Are approved plans forwarded herewith for Shafting *24-3-25 & 2-5-25* Receivers *9-4-25* Separate Tanks

Donkey Boilers *8-4-25*

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description,

WERKSPOR N.V.

Manufacturer.

Dates of Survey while building

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

May 24. 28. June 4-11. 19. 25. July 15-16-18. 22-31. Aug 5-12-13. 16-17-20-21-23-26-29. Sept 2-20-23. 25. Oct 1-2-4-9-17-21-23-24-29-31. Nov 7-8-25-26-29. Dec 2-5-6-13-15-16. Jan 2-11-14-20-22-23-24-29.

Dates of Examination of principal parts—Cylinders *17-21-23 Oct* Covers *27-21-23 Oct* Pistons *7 Nov 6 Dec* Rods *7 Nov 6 Dec* Connecting rods *4 Oct. 6 Dec*

Crank shaft *2 Sept 6 Oct 6 Dec* Flywheel shaft *25 Sept 9 Oct 6 Dec* Thrust shaft *29 Sept. 9 Oct.* Intermediate shafts

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

Crank shaft, Material *SMS*

Identification Mark *9244-9245*

Flywheel shaft, Material *SMS*

Identification Mark *9246*

Thrust shaft, Material *SMS*

Identification Mark *440403*

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

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

If so, state name of vessel

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

The machinery has been made in accordance with the approved plans. Secretary's letters and the rules, workmanship throughout good

The machinery have been shipped to Rotterdam and will be fitted aboard the Rotterdam dry dock at Jand N 193.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

When received,

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



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