

REPORT ON OIL ENGINE MACHINERY.

No. 1008

14 OCT 1929

Received at London Office

Date of writing Report

When handed in at Local Office

Port of

Bremen / Augsburg

Date, First Survey 3rd January Last Survey 31st Oct 1927

Number of Visits 99

No. in Survey held at Reg. Book.

Augsburg

on the ^{Single} Twin ^{Triple} ^{Quadruple} Screw vessel

built at Nicolaieff

By whom built

The Nicolaieff States Shipb
Boris Andre Marti

Yard No. 185 When built

Engines made at Augsburg

By whom made

Masch. Augsburg-Nürnberg A.G.

Engine No. 26710/20 When made 1927

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 2800

Owners

The Russian Naphta Syndicate

Port belonging to

Nom. Horse Power as per Rule 950

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

L ENGINES, &c.—Type of Engines 2 M.A.N. Diesel engines 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 15 kg/cm² Diameter of cylinders 540 mm Length of stroke 900 mm No. of cylinders 12 (2x6) No. of cranks 2/2x6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 802 mm Is there a bearing between each crank yes

Revolutions per minute 110 Flywheel dia. 2100 mm Weight 6300 kg Means of ignition Diesel syst Kind of fuel used Gas oil

Crank Shaft, dia. of journals as per Rule 346 mm as fitted 360 mm Crank pin dia. 360 mm Crank Webs Mid. length breadth Semi built shrunk Thickness parallel to axis 365 mm Mid. length thickness 235 mm Thickness around eye hole 157.5 mm

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per rule as fitted Is the after end of the liner made watertight in the

propeller boss 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 Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

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

forced Thickness of cylinder liners 47 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material insulation 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 fresh water 2 sea water Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. 2 Diameter 135 mm Stroke 200 mm Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size How driven

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump No. and size 2 geared cog wheel pumps

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces

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. 2 No. of stages 3 Diameters 580/515/120 Stroke 500 mm Driven by Crank shaft.

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

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

Scavenging Air Pumps, No. 4 Diameter 820 mm Stroke 900 mm Driven by Cross heads Nos 1+6

Auxiliary Engines crank shafts, diameter as per Rule as fitted

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 yes What means are provided for cleaning their inner surfaces flanges at top & bottom

Is there a drain arrangement fitted at the lowest part of each receiver yes

High Pressure Air Receivers, No. 2 Cubic capacity of each 200 litres Internal diameter 405 mm thickness 175 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 42-50 kg/mm² Working pressure by Rules 90.6 kg/cm²

Starting Air Receivers, No. 6 Total cubic capacity 7200 litres Internal diameter 585 mm thickness 27.5 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 42-50 kg/mm² Working pressure by Rules 102.2 kg/cm²

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IS A DONKEY BOILER FITTED?

PLANS. Are approved plans forwarded herewith for ^{Crank}Shafting 11/11/26
(If not, state date of approval)Feed water Heaters 9/5/27
Donkey Boilers

General Pumping Arrangements

If so, is a report now forwarded? —

Receivers 22/12/25 + 13/3/25 Separate Tanks —

Oil Fuel Burning Arrangements —

SPARE GEAR will be furnished as per Rules.

The foregoing is a correct description.

Maschinenfabrik Augsburg-Nürnberg A/G.

(signed)

(signed)

Manufacturer.

Dates of Survey while building { During progress of work in shops - January 3, February 1, 2, 11, 15, 16, 17, 21, 22 March 1, 2, 4, 7, 9, 11, 12, 14, 15, 16, 17, 21, 22, 23, 28, 30, 31, April 1, 4, 6, 7, 8, 11, 12, 13, 14, 21, 22, 26, 27, 28, 29 May 2, 4, 5, 11, 13, 18, 19, 20, 21, 23, 24, 25, 30, 31, June 2, 7, 8, 11, 13, 14, 20, 21, 22, 23, 24, 30, July 1, 2, 4, 6, 7, 8, 14, 22, 30
Total No. of visits = 99
August 3, 9, 10, 11 Sept 8, 9, 19, 20, 29, 30 Oct 4, 7, 10, 11, 12, 15, 17, 18, 19, 21, 31
Dates of Examination of principal parts - Cylinders 11-12/10/27 Covers 15/10/27 Pistons 17/10/27 Rods 17/10/27 Connecting rods 17/10/27
Crank shaft 21.10.27 Flywheel shaft - Thrust shaft - Intermediate shafts - Tube shaft -
Screw shaft - Propeller - Stern tube - Engine seatings - Engines holding down bolts in shop 2/9/27
Completion of fitting sea connections - Completion of pumping arrangements 17.4.27, 30.39. MK 25.2.27 Engines tried under working conditions 4/10/27
Crank shaft, Material SM. Ingot Steel Identification Mark 25-29, 30, MK 16.3.27 Flywheel shaft, Material - Identification Mark -
Thrust shaft, Material - Identification Mark - 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

Is this machinery duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) These diesel engines and their accessories

Have been constructed under special survey in accordance with the Rules and Regulations and other instructions as well as with the approved plans. The materials used in the construction are good and workmanship is satisfactory. Both engines have been tested under full power in the Makers shop for 7 hours, and were found working well. The injection and starting air receivers have been examined when manufactured and were found in accordance with the approved plans. The feed water heaters were inspected during construction and tested when completed, they were found in accordance with the approved plans. In my opinion the vessel for which these engines are intended will be eligible for the record of + L.M.C. (with date) when the engines and their accessories have been satisfactorily fitted on board. For identification the cylinder jackets have been stamped: No. 350. Lloyds test 6 ATM dates P.K.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ : : 19
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned

FRI. 25 OCT 1929

G. H. B. Bahr + P. A. Krutzfeldt

Engineer Surveyors to Lloyd's Register of Shipping.



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