

REPORT ON OIL ENGINE MACHINERY.

Received at London Office

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No. in Survey held at Norrköping Date, First Survey 11.3. Last Survey 12.11. 19 52
 Reg. Book. 70436 on the Single Screw vessel m.t. "NARVA" Number of Visits 14

Tons (Gross... 1147
 Net... 517)

Built at Norrköping By whom built AB Norrköpings Varv- & Verkstad Yard No. 138 When built 1952
 Engines made at Trollhättan By whom made Nydqvist & Holm AB Engine No. 1461 When made 1952
 Donkey Boilers made at Lübeck By whom made Lübecker Maschinenbau G.S. Boiler No. 1443 When made 1951
 Brake Horse Power 900 Owners U.S.S.R. Port belonging to Tallin
 M.N. Power as per Rule $202 \frac{900}{5} = 180$ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended General

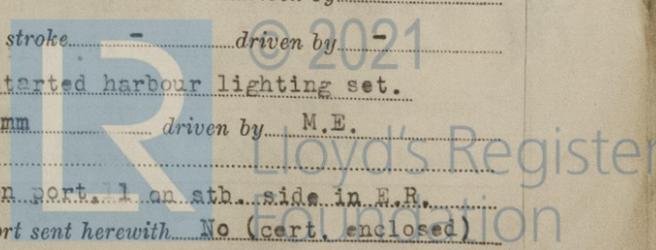
OIL ENGINES, &c.—Type of Engines 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders..... Diameter of cylinders..... Length of stroke..... No. of cylinders..... No. of cranks.....
 Mean Indicated Pressure..... Ahead Firing Order in Cylinders..... Span of bearings, adjacent to the crank, measured from inner edge to inner edge..... Is there a bearing between each crank 82/18 Revolutions per minute.....
 Flywheel dia..... Weight..... Moment of inertia of flywheel (lbs. in² or Kg. cm.²)..... Means of ignition..... Kind of fuel used.....
 Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia..... Crank webs shrunk Mid. length breadth..... Thickness parallel to axis.....
All built as fitted..... Mid. length thickness..... Thickness around eye-hole.....
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted
 as fitted.....
 Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner No
 as fitted.....
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule 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 tube shaft Yes If so, state type Cedervall, adjustable No. 7 Length of bearing in Stern Bush next to and supporting propeller 800 mm
 Propeller, dia. 2340 mm Pitch 1595 mm No. of blades 4 Material Cast steel whether moveable No Total developed surface 2.15 sq feet
 Moment of inertia of propeller (lbs. in² or Kg. cm.²)..... Kind of damper, if fitted None
 Method of reversing Engines Comp. air Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication Forced Thickness of cylinder liners 27.5 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.....
 Cooling Water Pumps, No. 1-28.5 t/h 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. 1-28.5 t/h Diameter 150 mm Stroke 120 mm Can one be overhauled while the other is at work.....
 Pumps connected to the Main Bilge Line { No. and size 1-28.5 t/h 1-40 t/h 1-27.6 t/h
 How driven M.E.-driven Motor Steam
 Is the cooling water led to the bilges No 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 2-250 t/h 1-27.6 t/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2-265 lit/m. 1-410 lit/m
 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 Aft C.D. 1-2 1/2" E.R. 2-2 1/2" and 2-3" In pump room 2-2"
 In holds, &c. Forw. D.C. 1-2" dry cargo hold 1-2" 1-1 1/2" chain locker 1-1 1/2" forw. pump room 1-2"
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1-3"
 Are all the bilge suction pipes in holds and bunkers fitted with strum-boxes Yes Are the bilge suction pipes 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 No 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..... 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 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.....
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.....
 Starting
 Main Air Compressors, No. 1 No. of stages 2 diameters 85/210 mm stroke 250 mm driven by M.E.
 Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 40/95 mm stroke 165 mm driven by Motor
 Small Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -
 What provision is made for first charging the air receivers Aux. air compr. motive power from hand started harbour lighting set.
 Scavenging Air Pumps, No. 1 (D.A.) crank type..... diameter 735 mm stroke 580 mm driven by M.E.
 Auxiliary Engines crank shafts, diameter as per Rule No. 3
as fitted 84 mm and 76.2 mm Position 2 on port. 1 on stb. side in E.R.
 Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith No (cert. enclosed)

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AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....

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.....

Injection Air Receivers, No..... Cubic capacity of each..... Internal diameter..... thickness..... by Rules.....

Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure..... Actual.....

Starting Air Receivers, No..... Total cubic capacity..... Internal diameter..... thickness..... by Rules.....

Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure..... Actual.....

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 No (Heating coils, cargo oil- & bilge pumps, and windlass).

PLANS. Are approved plans forwarded herewith for shafting No Receivers No Separate fuel tanks No

Donkey boilers No General pumping arrangements No. 15.12.49 Pumping arrangements in machinery space No. 15.12.49

Oil fuel burning arrangements No

Have Torsional Vibration characteristics been approved Yes Date of approval

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied

The foregoing is a correct description AB. Norrköpings Varv & Verkstad Ship-builder Manufacturer

Dates of Survey while building During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits

Dates of examination of principal parts—Cylinders Covers Pistons Rods Connecting rods

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts 20.6.50 Tube shaft

Screw shaft 20.6.50 Propeller 27.6.51 Stern tube 26.5.50 Engine seatings 12.5.52 Engine holding down bolts 30.7.52

Completion of fitting sea connections 30.7.52 Completion of pumping arrangements 24.9.52 Engines tried under working conditions 25.9.52 & 13.11.52

Crank shaft, material Identification mark Flywheel shaft, material Identification mark No. 1091

Thrust shaft, material Identification mark Intermediate shafts, material El. steel Identification marks A.S. 20.6.52

Tube shaft, material Identification mark Screw shaft, material El. steel Identification mark A.S. 20.6.50

Identification marks on air receivers

Welded receivers, state Makers' Name

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

Description of fire extinguishing apparatus fitted appi: 3-6 lit. in E.R., 3 in acc. 5 on deck, Steam smothering at donkey boiler. Chemical

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 Yes

Is this machinery duplicate of a previous case Yes If so, state name of vessel m.t. "ISHIM", "IRTISH" and "SUNGARI"

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

The machinery has been fitted onboard under my inspection and to my satisfaction and the workmanship

is good. The engine has been tested during four trial trips and found satisfactory.

The machinery of this vessel is eligible, in my opinion, to be classed in the Register Book, with the

notation of +LMC 10.52 and OG, subject to the engine not being run continuously between 98-118 R.P.M., (a noticeboard

to this effect has been fitted at the controls).

Certificates in respect of shafts, propellers, pumps and auxiliary engines are attached.

The amount of Entry Fee ... £ : : When applied for 1/2 19.52

Special ..1/3 ... Kr. 490:-- : When received 19

Donkey Boiler Fee... £ : :

Travelling Expenses (if any) Kr. 481:60 :

Committee's Minute

Assigned + LMC 11.52 Oil Eng.

09 DB 178 1/2 (with torsional endorsement)

