

RECEIVED

REPORT ON OIL ENGINE MACHINERY.

No. 18257



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2 JUN 1951

Survey Report 4th June 1951. When handed in at Local Office 12th June 1951. Port of Gothenburg
 Survey held at Trollhättan Date, First Survey 12th April, 1950 Last Survey 21st May 1951
 Number of Visits 8
 by Rule Single on the ~~XXXX~~ Screw vessel "I R T I S H" Approximate Tons Gross 1100 Net 500
 by Rule Norrköping By whom built Norrköpings Varv och Verkstad A-B. Yard No. 136 When built 1951
 Actual made at Trollhättan By whom made Nydqvist & Holm A-B. Engine No. 1324 When made 1951
 Boilers made at By whom made Boiler No. When made
 Horse Power 900 Owners U.S.S.R. Port belonging to
 15.12 as per Rule 202 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 for which vessel is intended

GINES, &c. — Type of Engines Heavy oil, trunk type 2 or 4 stroke cycle 2 Single or double acting Single
 (13.19/32") (22.27/32")
 m pressure in cylinders 50 kg/cm² Diameter of cylinders 345 mm. Length of stroke 580 mm. No. of cylinders 6 No. of cranks 6
 indicated Pressure 6.23 kg/cm² Ahead Firing Order in Cylinders 1-5-3-4-2-6 Span of bearings, adjacent to the crank, measured
 inner edge to inner edge 504 mm. Is there a bearing between each crank Yes Revolutions per minute 250
 dia. 1656 mm. Weight 2065 kg Moment of inertia of flywheel 7899 Means of ignition Compr. Kind of fuel used Diesel oil
 Solid forged dia. of journals as fitted 230 mm. Crank pin dia. 230 mm. Crank webs Mid. length breadth 310 mm. Thickness parallel to axis
 as fitted 230 mm. Mid. length thickness 124 mm. Thickness around eye hole
 as per Rule Intermediate Shafts, diameter as fitted 165 mm. Thrust Shaft, diameter at collars as fitted 174.9 mm.
 as fitted 198 mm. Is the (screw) shaft fitted with a continuous liner No
 as fitted 198 mm. (170 mm. at coupling) Is the after end of the liner made watertight in the
 Liners, thickness in way of bushes Thickness between bushes Is the after end of the liner made watertight in the
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 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-
 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
 of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted None
 of reversing Engines compr. air Is a governor or other arrangement fitted to prevent racing of the engine Yes Means of
 Forced Thickness of cylinder liners 27.5 mm. Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled
 with non-conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 the engine Cooling Water Pumps, No. 1 x 475 lit/min. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 pumps worked from the Main Engines, No. 1 x 475 lit/min. Diameter 150 mm. Stroke 120 mm. Can one be overhauled while the other is at work
 connected to the Main Bilge Line No. and size How driven
 cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
 ments

Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 x 265 litres/minute
 independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary
 pumps, No. and size:—In machinery spaces In pump room
 No. 135 s, &c.
 ndent Power Pump Direct Suctions to the engine room bilges, No. and size
 the bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction in the machinery spaces led from easily
 ble mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
 Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed
 ntly 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
 ey 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
 pipes pass through the bunkers How are they protected
 pipes pass through the deep tanks Have they been tested as per Rule
 pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times
 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
 or from one compartment to another Is the shaft tunnel watertight Is it fitted with a watertight door worked from
 od vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 ING Air Compressors, No. 1 No. of stages 2 diameters 85/210 mm. stroke 250 mm. driven by the engine
 ary Air Compressors, No. No. of stages diameters stroke driven by
 Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
 provision is made for first charging the air receivers
 ng Air Pumps, No. 1 (D.A.) crank type diameter 735 mm. stroke 580 mm. driven by the engine
 ary Engines crank shafts, diameter as per Rule No. Position
 as fitted the auxiliary engines been constructed under special survey Is a report sent herewith
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AIR RECEIVERS:—Have they been made under survey... Yes... State No. of ~~XXXXXX~~ certificate... 7209 and 7

Is each receiver, which can be isolated, fitted with a safety valve as per Rule... Fusible plug. Safety valves on compressor.

Can the internal surfaces of the receivers be examined and cleaned... Yes... Is a drain fitted at the lowest part of each receiver... Yes Report 117

Injection Air Receivers, No.... Cubic capacity of each... Internal diameter... thickness... Survey held at...

Seamless, welded or riveted longitudinal joint... Material... Range of tensile strength... Working pressure... by R... Single

Starting Air Receivers, No. 2... Total cubic capacity... 1800 litres... Internal diameter... 1 to 1000 lit. thickness... 16 mm... Triple

Seamless, welded or riveted longitudinal joint... El. welded Material S.M. Steel Range of tensile strength... 45.3-49.2 Working pressure... kg/mm... Quaduple

IS A DONKEY BOILER FITTED... If so, is a report now forwarded... de at... STA

Is the donkey boiler intended to be used for domestic purposes only... lers made at...

PLANS. Are approved plans forwarded herewith for shafting... 13.2.1950... Receivers... 13.2.1950... Separate fuel... e Power...

Donkey boilers... General pumping arrangements... Pumping arrangements in machinery space... as per Rule...

Oil fuel burning arrangements...

Have Torsional Vibration characteristics been approved... Yes... Date of approval... London 13.2.1950... speed range of 98 a... INES, &c.

SPARE GEAR.

Has the spare gear required by the Rules been supplied... Yes. To be checked on board.

State the principal additional spare gear supplied...

The foregoing is a correct description, and the particulars of the installation as fitted are as approved

torsional vibration characteristics.

NYDQVIST & HOLM AKTIEBOLAG

Konstruktionskontoret

Off. F. J. J.

Manufacturer.

Dates of Survey while building During progress of work in shops - - 12th April, 1950 - 21st May, 1951.

During erection on board vessel - -

Total No. of visits... 8

Dates of examination of principal parts—Cylinders 21.8.1950 Covers 21.8.1950 Pistons 6.4.1951 Rods... Connecting rods... 6.4.1951

Crank shaft 6.4.1951 Flywheel shaft... Thrust shaft 18.9.1950 Intermediate shafts 20.6.1950 Tube shaft... dia.

Screw shaft 20.6.1950 Propeller... Stern tube 3.5.1950 Engine seatings... Engine holding down bolts... of inertia of p

Completion of fitting sea connections... Completion of pumping arrangements... Engines tried under working conditions... 27... of reversing En

Crank shaft, material S.M. Steel Identification mark LL.No. 1982 OS 6.4.51 Flywheel shaft, material... Identification mark... n... FORCED... Th

Thrust shaft, material S.M. Steel Identification mark LL.No. 1958 OS 18.9.50 Intermediate shafts, material El. steel Identification marks LL.No. AS 20 with non-condu

Tube shaft, material... Identification mark... Screw shaft, material Electro steel Identification mark... No. 4010 AS 20 the engine...

Identification marks on air receivers 100 litr. LLOYD'S TEST 42 KGS. WP 25 KGS. SW 30.5.50 800 litr. LLOYD'S TEST 42 KGS. WP 25 KGS. SW 13.11.50 mps worked fro

Welded receivers, state Makers' Name Avesta Jernverks A-B., Avesta, Sweden

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...

Description of fire extinguishing apparatus fitted...

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... Yes... If so, state name of vessel M/T "Ischim", A-B. Norrköping

General Remarks (State quality of workmanship, opinions as to class, &c.) Verktad Yard No. 135, Gothenburg

This machinery has been built under Special Survey in accordance with the Rules and approved plans

The workmanship and materials are good and test sheets in respect of the latter are attached.

The engine has been tried under full working power in shop and found to work satisfactorily.

A notice board stating that the engine is not to be run continuously between 98 and 118 R.P.M. has been delivered with the engine and the tachometer will be marked accordingly.

This machinery is eligible, in my opinion, to be classed +LMC with date when securely fitted on bo

the vessel under inspection and to the satisfaction of the Society's Surveyors.

The amount of Entry Fee (2/3) Kr. 970:-

Special ... £

Donkey Boiler Fee... £

Travelling Expenses (if any) Kr. 103:50

When applied for 12/6 19 51.

When received 19

Committee's Minute TUES. 29 JAN 1952

Assigned...

See F.E. Moshy rpt.

Engineer Surveyor to Lloyd's Register of Sh



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