

REPORT ON OIL ENGINE MACHINERY.

No. 8470

31 DEC 1951

Received at London Office

Stockholm.

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rd No. 136

Writing Report 27.12.1951 When handed in at Local Office 19 Port of Stockholm.

Survey held at Norrköping Date, First Survey 6.3. Last Survey 17.10.1951

Number of Visits 10

86 Single on the TWIN Screw vessel "IRISH" Tons Gross 1113 Net 523

at Norrköping By whom built AB Norrköpings Varv & Verkstad Yard No. 136 When built 1951

made at Trollhättan By whom made Nydqvist & Holm A/B Engine No. 1324 When made 1951

Boilers made at Lübeck By whom made Lübecker Maschinenbau Ges. Boiler No. 1441 When made 1950

Horse Power 900 Owners U.S.S.R. Port belonging to Vladivostok

Power as per Rule 202 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

For which vessel is intended General.

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

Pressure in cylinders Diameter of cylinders Length of stroke 1825 mm No. of cylinders No. of cranks

Adjusted Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured

Per edge to inner edge Is there a bearing between each crank. Revolutions per minute

Dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm.²) Means of ignition Kind of fuel used

Solid forged as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis

Semi built dia. of journals as fitted Crank webs Mid. length thickness shrunk Thickness around eyehole

All built as per Rule Intermediate Shafts, diameter 165 mm Thrust Shaft, diameter at collars as fitted

Shaft, diameter as fitted Screw Shaft, diameter 198 mm Is the screw shaft fitted with a continuous liner No.

Liners, thickness in way of bushes 170 mm. at couplings Thickness between bushes Is the after end of the liner made watertight in the

boss. If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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-

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

shaft Yes. If so, state type Cedervall Adjustable No. 7 Length of bearing in Stern Bush next to and supporting propeller 800 mm.

Dia. 2340 mm Pitch 1595 mm No. of blades 4 Material Steel whether moveable No. Total developed surface 2.15 m²

of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted None.

of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched. Means of

Thickness of cylinder liners Are the cylinders fitted with safety valves. Are the exhaust pipes and silencers water cooled

with non-conducting material. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

engine. Cooling Water Pumps, No. One 28.5 tons/hour Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Pumps worked from the Main Engines, No. One 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 One - 28.5 tons/hour. One - 40 tons/hour. One - 27.6 tons/h.

How driven Main Engine driven. Electric motor. Steam driven.

Drinking 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

units. 2-250 t/h. + One - 27.6 t/h. Power Driven Lubricating Oil Pumps, including spare pump, No. and size One - 410 lit/min.

Independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to main bilge pumps and bilge

No. and size:—In machinery spaces Aft CD 1-2 1/2"; ER 2-2 1/2", 2-3" In pump room 2-2"

Forw. CD 1-2"; Dry cargo hold 2-2" x 1-1 1/2"; Chain locker 1-1 1/2"; Forw. pumproom 1-2"

at Power Pump Direct Suctions to the engine room bilges, No. and size 1-3"

Bilge suction pipes in holds and machinery spaces fitted with strum-boxes. Yes Are the bilge suction pipes in the machinery spaces led from easily

and boxes, placed above the level of the working floor, with straight tail pipes to the bilges. Yes

Connections fitted direct on the skin of the Ship. Yes Are they fitted with valves or cocks Valves and Cocks Are they fixed

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

Is 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

pass through the bunkers. How are they protected.

pass through the deep tanks. Have they been tested as per Rule.

cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times. Yes

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. Yes Is the shaft tunnel watertight. None. Is it fitted with a watertight door. worked from

Wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.

ing Air Compressors, No. One No. of stages 2 diameters 85/210 mm stroke 250 mm driven by Main Eng.

Secondary Air Compressors, No. One No. of stages 2 diameters 40/95 mm stroke 125 mm driven by El. motor.

Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

provision is made for first charging the air receivers. Aux. air compressor, motive power fr. hand started harbour lighting set.

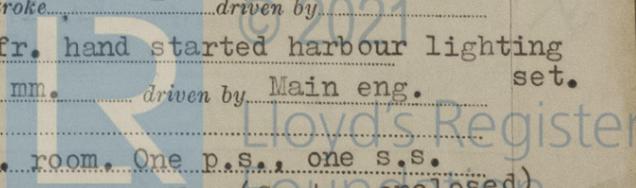
enging Air Pumps, No. One (DA) crank type diameter 735 mm. stroke 580 mm. driven by Main eng.

Auxiliary Engines crank shafts, diameter as per Rule appd. & No. 2 Position Eng. room. One p.s., one s.s.

the auxiliary engines been constructed under special survey Yes. Is a report sent herewith No. (Cert. enclosed)

Attn 21-52

012370-012376-0040



RECEIVED
 2 JUN 1951
 Reporting Report
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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..... *As ordered in 18257*

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

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

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

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

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 pump & feed pumps).....

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

Donkey boilers..... No. General pumping arrangements..... 15.12.49 Pumping arrangements in machinery space..... 15.12

Oil fuel burning arrangements..... No.

Have Torsional Vibration characteristics been approved Yes..... Date of approval..... 13.2.1950.

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,

~~Manufacturer~~ Shipbuilder.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits..... 10.

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

Crank shaft..... Flywheel shaft..... Thrust shaft..... Intermediate shafts..... Tube shaft.....

Screw shaft..... Propeller 28.6.51 Stern tube..... Engine seatings 6.3.51 Engine holding down bolts 28.

Completion of fitting sea connections 28.6.51 Completion of pumping arrangements 10.10.51 Engines tried under working conditions 11.

Crank shaft, material..... Identification mark..... Flywheel shaft, material..... Identification mark.....

Thrust shaft, material..... Identification mark..... Intermediate shafts, material El. steel Identification marks 20.6.

Tube shaft, material..... Identification mark..... Screw shaft, material El. steel Identification mark 20.6.

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..... Hose connections:—3 in ER, 3 in Acc., 5 on Dk. Steam smothering
 Chemical app. 3-6 lit. in ER, 3-6 lit. in Acc. For cargo tanks &

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo..... 20-30.5 lit. CO₂ flasks, 2-6 lit. in pumproom.
 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", Yard No. 135

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

This machinery has been fitted onboard under my inspection and to my satisfaction

The workmanship is good. The engine has been tested during a trial trip and found satisfact

The machinery of this vessel is eligible, in my opinion, to be classed in the Re

Book with the notation of *LMC 10,51 and OG, subject to the engine not being run continuous

between 98 and 118 r.p.m. (a notice board to which effect has been fitted at the controls.

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

The amount of Entry Fee ... £ : :
 Special 1/3 ... Kr. 415 :-- :
 Donkey Boiler Fee... £ : :
 Travelling Expenses (if any) Kr. 179 :55. :
 When applied for 27.12. 19 51.
 When received 19

H. Lund
 Engineer Surveyor to Lloyd's Register of Shi

TUES. 29 JAN 1952

Committee's Minute

Assigned + LMC 10,51 Oil Eng.

O.G. D.B. 178/b. (with torsional endorsement)



Certificates (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)