

REPORT ON OIL ENGINE MACHINERY.

No. 55304

Received at London Office

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 No. in Survey held at Goole Date, First Survey 6. 2. 48 Last Survey 30. 10. 19 48
 Reg. Book. 79486 on the ~~TRIP~~ ~~TRIP~~ Screw vessel "W.A.R.M.I.A."
 Built at Goole By whom built Goole S.B. & R. Co., Ltd. Yard No. 441 When built 1948
 Engines made at Glasgow By whom made British Polar Engines, Ltd. Engine No. E.643 When made 1948
 Donkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power 980 Owners Gdynia America Shipping Lines, Ltd. Port belonging to Szczecin
 Indicated Horse Power as per Rule 225 = MN Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Made for which vessel is intended Coastal

L. ENGINES, &c. — Type of Engines Heavy oil Type M.56M 2 or 4 stroke cycle Single or double acting
 Maximum pressure in cylinders SEE GLASGOW RPT. No. 73263. Diameter of cylinders Length of stroke No. of cylinders No. of cranks
 Indicated Pressure Diameter of cylinders Length of stroke No. of cylinders No. of cranks
 Distance of bearings, adjacent to the crank, measured from inner edge to inner edge Is there a bearing between each crank
 Revolutions per minute Flywheel dia. Weight Means of ignition Kind of fuel used
 Crank (Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis
 shaft, (Semi built dia. of journals as fitted Crank webs Mid. length thickness shrunk Thickness around eyehole
 All built as fitted
 Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule approx. 7.7/8" Thrust Shaft, diameter at collars as fitted incorporated
 as fitted in M.E. see Glasgow Rpt.
 Propeller Shaft, diameter as per Rule Screw Shaft, diameter as fitted T.O.C. 8" Is the tube screw shaft fitted with a continuous liner none
 as fitted F.O.G. 7 7/8"
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes 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 tube shaft Yes If so, state type Goole S.B. & R. Co. Ltd. Length of bearing in Stern Bush next to and supporting propeller 3'0"
 Propeller, dia. 89" Pitch No. of blades 4 Material bronze whether moveable solid 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 Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled
 lagged with non-conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 to the engine Cooling Water Pumps, No. 1 on ME, 1 G.S. pump Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Pumps worked from the Main Engines, No. 1 Diameter 110m/m Stroke 120m/m Can one be overhauled while the other is at work
 Pumps connected to the Main Bilge Line No. and size 1 recip., 1 centrif. 50 tons/hr. 1 recip. 50 ton/hr.
 How driven M.E. Motor Motor
 Is 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
 Main Pumps, No. and size 1 recip. as connected to bilge line. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 on ME
 Two independent means arranged for circulating water through the Oil Cooler Yes ME bilge & incl. G.S. pump
 pumps, No. and size: In machinery spaces 1-2 1/2" A.E.R. 1-3 1/2" F.E.R. 1-2 1/2" and 1-3 1/2" A.E.R. pump room
 Holds, &c. 2-3" aft of hold, 2-2 1/2" middle of hold, 2-2 1/2" to cofferdam after end of hold.
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1-3 1/2" A.E.R. from centrif. pump.
 1-3 1/2" F.E.R. recip. pump.
 All the bilge suction pipes in holds not connected fitted with strum-boxes Yes Are the bilge suction pipes in the machinery spaces led from easily
 accessible mud-boxes, placed at the level of the working floor, with straight tail pipes to the bilges Yes
 All Sea Connections fitted direct on the skin of the Ship Yes Are they fitted with valves or cocks Yes Are they fixed
 sufficiently high on the ship's side to be seen without lifting the platform plates Yes 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
 Do pipes pass through the bunkers How are they protected
 Do pipes pass through the deep tanks Have they been tested as per Rule
 Are 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 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. see report on M.E. No. of stages stroke driven by
 Auxiliary Air Compressors, No. 2 Hamworthy No. 70924; 39 cu.ft/min. driven by R.H. Eng. No. 238696. No. of stages stroke driven by
 Small Auxiliary Air Compressors, No. Reavell No. 97034 motor driven. No. of stages stroke driven by

What provision is made for first charging the air receivers The above diesel engine can be started by hand.

Exhausting Air Pumps, No. diameter stroke driven by

Auxiliary Engines crank shafts, diameter as per Rule Eng. Nos. 247222/3 Nott. Rpt. No. 262. as fitted Eng. Nos. 238696. Nott. Rpt. 308 Position

Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes

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"WARMIA".
AIR RECEIVERS:—Have they been made under survey? **Yes** ✓ State No. of report or certificate **Main Glasgow cert. Nos. 64660a 64661 (attached)**
Is each receiver, which can be isolated, fitted with a safety valve as per Rule? **Yes** ✓ **Aux. Nott. Cert. D.1327.**
Can the internal surfaces of the receivers be examined and cleaned? **Yes** ✓ Is a drain fitted at the lowest part of each receiver? **Yes** ✓

Injection 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. **2 main** ✓ **main 70 cu.ft.**
1 aux. 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 **No** ✓ If so, is a report now forwarded? —
Is the donkey boiler intended to be used for domestic purposes only? —

PLANS. Are approved plans forwarded herewith for shafting? **22.1.47.** Receivers — Separate fuel tanks —
(If not, state date of approval)
Donkey boilers — General pumping arrangements **28.3.47** Pumping arrangements in machinery space **28.3.47.**
Oil fuel burning arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied? **see below.**
State the principal additional spare gear supplied. **No major items.**
Spare gear to Rule requirements on board vessel except spare impeller for M.E. scavenge blower. The Glasgow Surveyors state that this has now been despatched to vessel.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops —
During erection on board vessel — **1948. Feb. 6; Apr. 14, 16, 22, 23, 30; May 19, 28, 31; June 14; Oct. 1, 7, 11, 14, 19, 28, 30.**
Total No. of visits **17**

Dates of examination of principal parts—Cylinders — Covers — Pistons — Rods — Connecting rods —
Crank shaft — Flywheel shaft — Thrust shaft — Intermediate shafts **16.4.48.** Tube shaft —
Screw shaft **16.4.48.** Propeller **23.4.48.** Stern tube **23.4.48.** Engine seatings **19.4.48.** Engine holding down bolts **1.10.48.**
Completion of fitting sea connections **23.4.48.** Completion of pumping arrangements **19.10.48.** Engines tried under working conditions —
Crank shaft, material — Identification mark — Flywheel shaft, material — Identification mark —
Thrust shaft, material — Identification mark — Intermediate shafts, material — Identification mark **LLOYDS WAL 1424 18.**
Tube shaft, material — Identification mark — Screw shaft, material — Identification mark **LLOYDS WAL 1425.**

Identification marks on air receivers.
Main- see Glasgow certificates 64660a & 64661 attached.
Aux. - Ruston & Hornsby D.1327. 23.5.48.

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 **chemical & hose pipe**
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo? **No** ✓ 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** **Propellers covered Nwc. Cert. No. C.25.**
Is this machinery duplicate of a previous case? **No** ✓ If so, state name of vessel. — **Southampton Cert. depe D.2986.**

General Remarks (State quality of workmanship, opinions as to class, &c.)
The main and auxiliary machinery of this vessel has been installed under special survey in accordance with the approved plans, Secretary's letters and the Rules.
On completion the machinery was examined under working conditions and found satisfactory.

A notice board fitted at the control station stating that the engines are not to be run continuously between 150 & 175 R.P.M. as stated in Secretary's letter of 22.1.47.

The machinery is eligible in my opinion to have the Notations:-

+LMC 10,48 O.G.
Oil engines 3 S.C.S.A. 6 cyl. 13.3/8", 22.3/8". 225 MN.

The amount of Entry Fee ... £
Special 1/3 L.M.C. £ 30 :- (pls. debit)
Donkey Boiler Fee... £
Travelling Expenses (if any) £
When applied for 19
When received 19

Committee's Minute **FBI 14 JAN 1949**
Assigned **+ LMC 10.48 Oil Eng.**
O.G.

