

## REPORT ON OIL ENGINE MACHINERY.

No. 2190

Received at London Office

-3 DEC 1951

Date of writing Report 24/11 1951 When handed in at Local Office 29/11, 1951 Port of HELSINGBORG.

No. in Survey held at Landskrona Date, First Survey 7th June Last Survey 15th Nov 1951  
Reg. Book. 40179 on the ~~Triple~~ ~~Quadruple~~ Screw vessel Motortanker "MARGIT GORTON". Number of Visits 39

Gross 10034  
Net 5867

Built at Landskrona By whom built Öresundsvarvet A/B Yard No. 118 When built 1951

Engines made at Gothenburg By whom made A/B Götaverken Engine No. 2244 When made 1951

Donkey Boilers made at Gothenburg By whom made A/B Lindholmens Varv Boiler No. 2877/8 When made 1950

Service and max. designed Brake Horse Power 6500 Owners Rederi A/B Gylfe Port belonging to Helsingborg

M.N. Power as per Rule 1340 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 Heavy oil; type DM 760/1300 VG8 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders — Diameter of cylinders — Length of stroke — No. of cylinders 8 No. of cranks 8

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 Yes Revolutions per minute 117

Flywheel dia. — Weight — Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) — Means of ignition Compr. Kind of fuel used oil

Crank Shaft, Solid forged dia. of journals as per Rule — Crank pin dia. — Crank webs Mid. length breadth — Thickness parallel to axis —  
Semi built as fitted — Mid. length thickness — shrunk Thickness around eye hole —  
All built as fitted —

Flywheel Shaft, diameter as per Rule — Intermediate Shafts, diameter as fitted 395 mm. Thrust Shaft, diameter at collars as per Rule —  
as fitted — as fitted 395 mm. as fitted —

Tube Shaft, diameter as per Rule — Screw Shaft, diameter as fitted 459 mm. Is the screw shaft fitted with a continuous liner Yes  
as fitted — as fitted 459 mm. as fitted —

Bronze Liners, thickness in way of bushes as per Rule 22 mm. Thickness between bushes as fitted 16.5 mm. Is the after end of the liner made watertight in the propeller boss Yes  
as fitted 22 mm. as fitted 16.5 mm. as fitted —

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

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 No If so, state type — Length of bearing in Stern Bush next to and supporting propeller 2100 mm

Propeller, dia. 17'-0" Pitch 13'-9" No. of blades 4 Material Bronze whether moveable No Total developed surface 118.4 sq. feet

Moment of inertia of propeller (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) 188300 Kind of damper, if fitted None

Method of reversing Engines Dir. with/ compr. air. Is a governor or other arrangement fitted to prevent racing of the engine when detached Yes Means of lubrication Forced Thickness of cylinder liners — 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. Led to the funnel. Cooling Water Pumps, No. 2 FW and 2 SW. 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. None Diameter — Stroke — Can one be overhauled while the other is at work —

Pumps connected to the Main Bilge Line No. and size 1 ballast á 110 t/h; 1 bilge á 85 t/h; 1 condenser á 190 t/h. How driven Electric driven. Steam driven.

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 1 á 110 t/h. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 3 á 140 m<sup>3</sup>/h.

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 2x3.3/4"; 3x2 1/2"; 2x2 1/2" to c/d in E.R. Main: 3x3 1/2" In pump room Fwd.: 1x2 1/2"

In holds, &c. Dry cargo hold: 2x3"; Fwd. c/d: 1x4"; Aft c/d: 1x4".

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2x6".

Are 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 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 No Are they fitted with valves or cocks Valves Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates No small plates to be lifted. 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 1 pipe to FPT through fwd. deep t. 2 pipes aft c/d aft t. Have they been tested as per Rule Yes

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 — 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. None No. of stages — diameters — stroke — driven by —

Auxiliary Air Compressors, No. Two No. of stages Two diameters 300/260 mm. stroke 160 mm. driven by El. motors

Small Auxiliary Air Compressors, No. None No. of stages — diameters — stroke — driven by —

What provision is made for first charging the air receivers Charged by aux. compressors. Current supplied from steam dr. gen.

Scavenging Air Pumps, No. — diameter — stroke — driven by —

Auxiliary Engines crank shafts, diameter as per Rule — No. Two Position 1 port & 1 stbd. side in E.R.

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



AIR RECEIVERS:—Have they been made under survey. Yes ✓ State No. of report certificate. Glasgow C. 78960  
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 and cleaned. Yes ✓ Is a drain fitted at the lowest part of each receiver. Yes ✓  
Injection Air Receivers, No. None ✓ Cubic capacity of each. — Internal diameter. — thickness. —  
Seamless, welded or riveted longitudinal joint. — Material. — Range of tensile strength. — Working pressure by Rules. —  
Starting Air Receivers, No. Two ✓ Total cubic capacity. — Internal diameter. 6'-0" ✓ thickness. 1" ✓  
Seamless, welded or riveted longitudinal joint. Welded ✓ Material. — Range of tensile strength. 30,5-31,2 tons/sq.in by Rules. —  
Working pressure Actual. 356 lb.  
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  
PLANS. Are approved plans forwarded herewith for shafting. Lon. 15.8.49 Receivers. — Separate fuel tanks. —  
(If not, state date of approval)  
Donkey boilers. — General pumping arrangements. 28.12.50 Pumping arrangements in machinery space. 28.12.50  
Oil fuel burning arrangements. —  
Have Torsional Vibration characteristics been approved. Yes ✓ Date of approval. Lon. 15.8.49

#### SPARE GEAR.

Has the spare gear required by the Rules been supplied. Yes ✓  
State the principal additional spare gear supplied. One propeller shaft marked: LLOYD'S NO. 2094 T.O. 7.6.51  
5 cylinder liners, 1 piston rod, 2 exhaust gas valves and 1 complete main bearing.

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

During progress of work in shops - - 1951. June 7. July 5. Aug. 8, 24. Sept. 3, 20. Oct. 16. Nov. 1, 2, 5.  
During erection on board vessel - - 1951. Sept. 7, 11, 19, 21, 24, 26, 28, Oct. 1, 3, 5, 8, 9, 11, 15, 17, 19, 22, 23, 25, 29.  
Nov. 1, 2, 5, 6, 7, 12, 13, 14, 15.  
Total No. of visits 39  
Dates of examination of principal parts—Cylinders. — Covers. — Pistons. — Rods. — Connecting rods. —  
Crank shaft. — Flywheel shaft. — Thrust shaft. — Intermediate shafts. 18.10.51 Tube shaft. —  
Screw shaft. 7.6.51 Propeller. — Stern tube. 5.7.51 Engine seatings. 7.9.51 Engine holding down bolts. 5.10.51  
Completion of fitting sea connections. 1.11.51 Completion of pumping arrangements. 12.11.51 Engines tried under working conditions. 14.11.51  
Crank shaft, material. — Identification mark. — Flywheel shaft, material. — Identification mark. —  
Thrust shaft, material. — Identification mark. — Intermediate shafts, material. S.M.Stl Identification marks. B-n 18.10.51  
Tube shaft, material. — Identification mark. — Screw shaft, material. S.M.Steel Identification marks. Lloyd's No. 490  
Identification marks on air receivers. No. 23179 LLOYD'S TEST 584 lb.  
W.P. 356 lb. J.Mc.L. 15.6.50

Welded receivers, state Makers' Name. Cochran & Co. Annan Ltd.  
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. Steam under donkey boilers; 2x2" hose connections; 5 foam- and 1 CO<sub>2</sub>  
fire extinguishing apparatus à 2 gallons each.  
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. Not desired. ✓  
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. This machinery built under Special Survey in)  
accordance with the Rules and approved plans as per Gothenburg First Entry report No. 18526 has been  
installed on board under my supervision and to my satisfaction.

The workmanship and materials are good and test sheets in respects of intermediate shafts,  
propeller shafts, propeller and air receivers are attached.

The machinery has been tested under full working condition on a trial trip and found in order.

No torsigraph records have been taken from the completed installation.

The machinery of this vessel is eligible, in my opinion, to be classed in the Society's  
Register Book with records of + LMC 11,51, CL and 2DB 150 lbs.

The amount of Entry Fee ... £ -- :  
1/3 Special ... £ 1855:00 : When applied for 19/11, 19 51.  
Donkey Boiler Fee... £ -- : When received -- 19  
Travelling Expenses (if any) £ -- :  
FRI. 4 JAN 1952

Committee's Minute

Assigned + LMC 11,51 Oil Eng.  
C.L. 2DB 150lb

Torsten Isen  
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
Foundation