

RECEIVED
22 OCT 1947

REPORT ON OIL ENGINE MACHINERY.

No. 2505.

20 OCT 1947

Received at London Office

Plans
ardha

16th Oct. 1947. When handed in at Local Office 18th Oct. 1947 Port of Malmö
Date, First Survey 9th Sept. 1946 Last Survey 9th Oct. 1947
Number of Visits 142

Survey held at Malmö
g. Book comple.

Single
Triple
Quadruple

on the "GAUTHIOD" Screw vessel
Tons Gross 8650
Net 5093

By whom built Stockholm Mekan. V. A. B. Yard No. 288 When built 1947
By whom made Stockholm Mekan. V. A. B. Engine No. 413 When made 1947
By whom made Stockholm Mekan. V. A. B. Boiler No. 1020 When made 1947
Owners Stockholm Rederi A. B. Svea Port belonging to Stockholm
Horse Power 4500 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
Horse Power as per Rule 1361 Is Electric Light fitted Yes
ade for which vessel is intended MN=1361

MAN. D724 60/110. 2 or 4 stroke cycle 2 Single or double acting Double
Maximum pressure in cylinders 50 kg. cm² Diameter of cylinders 600 mm Length of stroke 1100 mm No. of cylinders 7 No. of cranks 7
Indicated Pressure 5.5 kg. cm² 860 mm. Is there a bearing between each crank Yes
of bearings, adjacent to the crank, measured from inner edge to inner edge 860 mm
Revolutions per minute 110 Flywheel dia. 2093 mm Weight 3950 kg Means of ignition Diesel system Kind of fuel used Heavy oil
ank (Solid forged as per 420 mm dia. of journals as fitted 420 mm Crank pin dia. 420 mm Crank webs Mid. length breadth 370 mm Thickness parallel to axis 265 mm
haft, Semi built as fitted 420 mm Crank webs Mid. length thickness 365 mm Thickness around eye hole 265 mm
All built as per 420-372 mm Intermediate Shafts, diameter as fitted 354 mm Thrust Shaft, diameter at collars as fitted 375 mm
Flywheel Shaft, diameter as fitted 420-372 mm Is the tube shaft fitted with a continuous liner Yes
Shaft, diameter as per Rule Screw Shaft, diameter as fitted 395 mm Is the screw shaft fitted with a continuous liner Yes
Liners, thickness in way of bushes as fitted 20 mm Thickness between bushes as fitted 15 mm Is the after end of the liner made watertight in the
opeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after
end of tube shaft Yes If so, state type Yes Length of bearing in Stern Bush next to and supporting propeller 1520 mm
Propeller, dia. 5000 mm Pitch 4050 mm No. of blades 4 Material Stainless steel whether moveable No Total developed surface 87 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 41.5 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled
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 each of 220 m³/H. 1 of 180 m³/H. 1 of 35 m³/H. for aux. oil eng. Yes
Is the sea suction provided with an efficient strainer which can be cleaned 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 Yes
Pumps connected to the Main Bilge Line { No. and size 3. 1 of 100 m³/H. 1 of 40 m³/H. 1 of 36 m³/H. 1 of 180 m³/H. In main pump room In pump room fwd. 1 of 30 m³/H.
How driven One steam driven. Two elec. driven. Steam driven. Steam driven.
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. 100 m³/H. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2. each of 135 m³/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 3-3 1/2", 1-2" 2-3 1/2" In main pump room 2-3 1/2" In pump room fwd. 1-3 1/2"
holds, &c. 2-3 1/2" In dry cargo hold: 2-3 1/2" In forward cofferdam: 2-3 1/2"
Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1-5", 1-4" and 1-3 1/2"
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction 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 Both Are they fixed
efficiently high on the ship's side to be seen without lifting the platform plates Yes, or by lifting special covers. 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
That pipes pass through the bunkers ✓ How are they protected ✓
That pipes pass through the deep tanks Inclination pipes from after cofferdam 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
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 No tunnel. 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. 2 No. of stages 2 diameters 300 & 110 mm stroke 220 mm driven by Aux. oil eng.
Small Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 5 m³ atm. stroke ✓ driven by Harbour gas.
That provision is made for first charging the air receivers Small air compressor
Scavenging Air Pumps, No. 2 Sanderson diameter 1380 mm stroke 930 mm driven by Main engine.
Auxiliary Engines crank shafts, diameter as per 170 mm No. 2 Position Engine Room
Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes

21.

AIR RECEIVERS:—Have they been made under survey Yes State No. of report or certificate See below!
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
 Can the internal surfaces of the receiver be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes
 Small start Injection Air Receivers, No. 1 Cubic capacity of each 200 lit. Internal diameter 476 mm thickness 13 mm
 Seamless, lap welded or riveted longitudinal joint the welded Material 100% steel Range of tensile strength 49.1-49.8 kg. mm² by Rules 29.0
 Starting Air Receivers, No. 2 Total cubic capacity 12 m³ Internal diameter 1450 mm thickness 25 mm
 Seamless, lap welded or riveted longitudinal joint Riveted Material 100% steel Range of tensile strength 46.7-48 kg. mm² by Rules 23.2
 IS A DONKEY BOILER FITTED Yes If so, is a report now forwarded 2 boiler reports forwarded Actual 30.0

PLANS. Are approved plans forwarded herewith for shafting 8.8.1944 Receivers 25.9.1944 Separate fuel tanks 29
 (If not, state date of approval)
 Donkey boilers 29.5.1946 General pumping arrangements 22.2.1945 Pumping arrangements in machinery space 29.1.1945
 Oil fuel burning arrangements ✓

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied 1 top cylinder cover. 1 bottom cylinder cover. 3 top cylinder liners. 3 bottom cylinder liners. 1 complete piston with piston rod. 10 complete piston rod packings. 1 complete fuel pump. 1 propeller shaft. Additional pumps - In motor space: 1 sanitary pump of 20 m³/H. elec. driven. 2 sanitary pumps of 3 m³/H. electric driven. 1 oil transfer pump of 23 m³/H. electric driven.
 The foregoing is a correct description, (To be cont.)

Manufacturer Trust Industries
 Dates of Survey while building
 During progress of work in shops - from 9th Sept. 1946 to 9th Aug. 1947
 During erection on board vessel - 11th Aug. 1947 to 9th Oct. 1947
 Total No. of visits 142
 Dates of examination of principal parts—Cylinders 12 visits Covers 4 visits Pistons 7 visits Rods 12 visits Connecting rods 4 visits
 Crank shaft 3/6.1947 Flywheel shaft 28/1.1947 Thrust shaft 23/2.1947 Intermediate shafts 23/2.1947 Tube shaft ✓
 Screw shaft 14/11.1946 Propeller 22/9.1947 Stern tube 16/6.1947 Engine seatings 2/2.1947 Engine holding down bolts 27/8.1947
 Completion of fitting sea connections 2/7.1947 Completion of pumping arrangements 7/10.1947 Engines tried under working conditions 9/10.1947
 Crank shaft, material 100% steel Identification mark 9A.21.11.1946 Flywheel shaft, material 100% steel Identification mark 231.AB.28.1
 Thrust shaft, material 100% steel Identification mark 130.AB.23.7.47 Intermediate shafts, material 100% steel Identification mark 146.AB.23.5
 Tube shaft, material 100% steel Identification mark 82.TS.14.11.46 Screw shaft, material 100% steel Identification mark 181.TS.14.11.46
 Identification marks on air receivers No. 155 & 156. Lloyd's 44 kg. cm². W.P. 30 kg. cm². AB. 30.5.47.

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 ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Oil Tanker If so, have the requirements of the Rules been complied with Yes
 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 "SECURUS", 1.20.1947

General Remarks (State quality of workmanship, opinions as to class, &c.) The main and auxiliary oil engines of the vessel have been built under special survey in accordance with the Rules and approved plans.
The material fulfil the Rule requirements and the workmanship is good.
The shafting as per forging reports enclosed.
The machinery of this vessel is eligible, in my opinion, to be classed in the Register Book of this Society with record of LMC 10.47, subject to single pole circuit breakers fitted in accommodations aft being replaced by double pole circuit breakers first opportunity.

The amount of Entry Fee ... £
 Special 3710.- When applied for 18th Oct. 1947
 1/2 of 2nd rate air recs. 160.- When received 19
 Donkey Boiler Fee 50.-
 1st 2 mos of survey 50.-
 Committee's Minute FRI. 21 NOV 1947
 Assigned + LMC 10.47 Oil Eng Subject
C.L. 2.D.B. 1716

Rpt. 9a. Mahmūd Continuation of ^{Mchy} Report No. 2505 dated 18th Oct. 1947 on the
 M/T "GAUTHIOD", No. 36712 in the Reg. Book Supplement.

Additional pumps - In motor space: - (cont.)
 1 fire pump of 80 m³/H. electric driven.
 2 cool. water pumps for fuel motors of 3 m³/H. electric driven.
 2 mints of oil fuel pumps for Donkey boilers.
 2 fuel pumps of 8 m³/H. steam driven.
 In main pump room:-
 2 cargo pumps of 325 m³/H. steam driven.

Certificate (if required) to be sent to Surveyors Office, Mahmūd.