

REPORT ON OIL ENGINE MACHINERY.

No. 19475.

Received at London Office.

Date of writing Report 2nd Dec. 1952. When handed in at Local Office 12th Dec. 1952 Port of Gothenburg

No. in Reg. Book. 90803 Survey held at Gothenburg Date, First Survey 24th March, 52 Last Survey 28th Nov. 1952. Number of Visits 63.

Single on the Tank Screw vessel. Motor Tanker "K A R E N M A E R S K" Tons Gross 11756 Net 6852

Built at Gothenburg By whom built Eriksbergs Mek. Verkstads Aktiebolag Yard No. 429 When built 1952

Engines made at Gothenburg By whom made Eriksbergs Mek. Verkstads Aktiebolag Engine No. 566 When made 1952

Boilers made at Karlskrona By whom made Marinverkstaderna, Karlskrona and Eriksbergs Mek. Verkstads Aktiebolag Boiler No. 107-08 910-11 When made 1952

Service and max. like Horse Power 7250 Owners A/S D/S Svendborg & D/S af 1912 A/S Port belonging to Copenhagen

Power as per Rule 1445, New 1450 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Use for which vessel is intended General

ENGINES, &c. — Type of Engines 1 heavy oil engine 2 or 4 stroke cycle 2 Single or double acting SA

Maximum pressure in cylinders 49 kg/cm² Diameter of cylinders 740 Length of stroke 1400 No. of cylinders 9 No. of cranks 9

Indicated Pressure 6.5 kgs/cm² Ahead Firing Order in Cylinders 1-8-3-6-5-4-7-2-9 Span of bearings, adjacent to the crank, measured from inner edge to inner edge 948 mm.

Is there a bearing between each crank Yes Service and max. 115 Diesel revolutions per minute 115

Wheel dia. 1975 Weight 2500 kgs Moment of inertia of flywheel (kgm²) 5260 Means of ignition Compr. Kind of fuel used oil or boiler oil.

Crank shaft dia. of journals 520 mm. Crank pin dia. 520 mm. Crank webs with 185 mm. centerhole. Mid. length breadth 520 mm. Thickness parallel to axis 270

Intermediate Shafts, diameter 410 mm. Thrust Shaft, diameter at collar 500 mm. with 160 mm. central hole

Screw Shaft, diameter 467 mm. Is the screw shaft fitted with a continuous liner Yes

Liner thickness in way of bushes 22 mm. Thickness between bushes 22 mm. Is the after end of the liner made watertight in the propeller boss Yes One length

Does 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-resoluble tightly 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

Length of bearing in Stern Bush next to and supporting propeller 2100 mm.

Propeller, dia. 5500 Pitch 4150 mm. No. of blades 4 Material Bronze whether moveable No Total developed surface 11.3 m²

Moment of inertia of propeller 69300 Kind of damper, if fitted None fitted

Method of reversing Engines Compr. air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of re-rotation Forced Thickness of cylinder liners 52 mm. Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned led to funnel 2 SW 4670 1/m. 2 FW 4170 1/m.

Cooling Water Pumps, No. 2 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. 1 Diameter 150 mm Stroke 200 mm. Can one be overhauled while the other is at work

Bilge pumps connected to the Main Bilge Line 1 Ballast pump 150 t/h. 1 bilge pump 40 t/h. 1 bilge pump 20 tons/hour

How driven El. driven Steam driven Main engine

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

Fast Pumps, No. and size 1 x 150 M³/hour Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 x 315 M³/hour

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary main pumps, No. and size:—In machinery spaces 3 x 4", 2 x 2 1/2" from crank pit aft & forward In pump room 2 x 4"

Fwd pump room 1 x 2 1/2", 2 x 2 1/2" from cargo holds

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 x 4" to bilge pump, 1 x 6" to ballast pump

Are all the bilge suction pipes in holds 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 tank top Are they fitted with valves or cocks Both Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Not all 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

Do the pipes pass through the bunkers No coal bunkers How are they protected

Do the pipes pass through the deep tanks Bilge pipes from 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

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 No tunnel Is it fitted with a watertight door worked from

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

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

Auxiliary Air Compressors, No. Two No. of stages 2 diameters 11.1/4"-4.3/4" stroke 8" driven by El. driven

Small Auxiliary Air Compressors, No. One No. of stages 2 diameters 3.3/4"-1 1/2" stroke 3.1/4" driven by Steam driven

Is that provision is made for first charging the air receivers The above steam driven compressor

Scavenging Air Pumps, No. 2 diameter Rotary type stroke driven by Main engine

Auxiliary Engines crank shafts, diameter Appd. Crank pins 170mm. Cr. journal 170 mm. No. Two Position Port side for and aft engine room floor.

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

Is a harbour light set also fitted pos: on a platform Port side eng. room. 010537-010544-0312

AIR RECEIVERS:—Have they been made under survey... Yes ✓ State No. of ~~report~~ 2496 - 97

Is each receiver, which can be isolated, fitted with a safety valve as per Rule... Yes. 32 mm. spring loaded

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 ---

Starting Air Receivers, No. 2 ✓ Total cubic capacity. 2 x 11.5 M³ Internal diameter 1800 mm. thickness 27 mm.

Seamless, welded or riveted longitudinal joint. El. welded Material S.M. Steel Range of tensile strength 41-55 kgs/mm² Working pressure Actual 25.0 kg/cm²

IS A DONKEY BOILER FITTED Yes ✓ If so, is a report now forwarded... Yes. Also Malmö report No. 3134.

Is the donkey boiler intended to be used for domestic purposes only... No

PLANS. Are approved plans forwarded herewith for shafting London 21.8.1951 Receivers London 21.9.50 Separate fuel tanks 2.9.51

Donkey boilers 12.2.1951 General pumping arrangements 14.2.1952 Pumping arrangements in machinery space 14.2.1952

Oil fuel burning arrangements 7.3.1952

Have Torsional Vibration characteristics been approved... Yes Date of approval 14.8.1951

SPARE GEAR.

Has the spare gear required by the Rules been supplied... Yes ✓

State the principal additional spare gear supplied. One propellershaft, 2 cyl.covers, 2 cyl. liner, 3 pistons, 1 piston rod, 9 exhaust valves, 2 starting valves, 18 fuel inj. valves.

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

ERIKSBERGS MEK. VERKSTADS A-B.

[Signature]

Manufacturer.

Dates of Survey while building During progress of work in shops - - 24.3.1952 - 3.10.1952

During erection on board vessel - - - 11.10.1952 - 28.11.1952.

Total No. of visits 63.

Dates of examination of principal parts—Cylinders 11,13/9-52 Covers 10,17/6-52 Pistons 10,23/9-52 Rods 1,4/9-52 Connecting rods 30/7-52

Crank shaft 21.2.52 Flywheel shaft --- Thrust shaft 21.2.52 Intermediate shafts 24.9.52 Tube shaft ---

Screw shaft 17.9.52 Propeller 17.9.52 Stern tube 19.6.52 Engine seatings --- Engine holding down bolts 18.10.52

Completion of fitting sea connections 15.9.52 Completion of pumping arrangements 25.11.52 Engines tried under working conditions 3.10.52.

Crank shaft, material S.M. Steel Identification mark LL 1007-8 SB 21.2.52. Flywheel shaft, material --- Identification mark ---

Thrust shaft, material S.M. Steel Identification mark LL No. 1009 SB 21.2.52. Intermediate shafts, material S.M. Steel Identification marks LL No. 9019 BJ 24.9.52.

Tube shaft, material --- Identification mark --- Screw shaft, material S.M. Steel Identification marks Lloyd's No. 8784 BJ 17.9.52.

Identification marks on air receivers. Nos 2496-97 LLOYD'S TEST 41 Kgs WP 25 Kgs 28.7.52. GU Spare Lloyd's No. 8785 GU 29.9.52

Welded receivers, state Makers' Name Eriksbergs Mek. Verkstads Aktiebolag, Gothenburg

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 7 foam fire ext. apparatus, 1 CO₂. Steam under D B and E R platform, also "Ellehammer foam fire ext. system"

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... ---

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... No --- If so, state name of vessel... ---

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c. The main and auxiliary engines of this vessel

have been constructed under Special Survey in accordance with the Rules and approved plans. The workmanship and material

is good and test sheets in respect of the shafting and the air receivers attached. The machinery has been securely fitted

in the vessel under my inspection and to my satisfaction and has been tested under full power conditions on a trial trip

and found in order. All pumps for essential services have been examined and tested in accordance with the Rules. A Spare

Swirlyflo Exhaust Gas Economiser, made by Messrs. AB Lindholmens Varv, Gothenburg, as per Gothenburg First Entry Report

No. 18761, has been fitted onboard and its safety valves adjusted to 180 lbs/in². This economiser works as a heater in

conjunction with the oil fired boilers.

Spec. Survey The amount of Extra Fee ... Kr. 6330:00

E.W. of bedplate etc. ... Kr. 475:00 When applied for 12th Dec. 19 52.

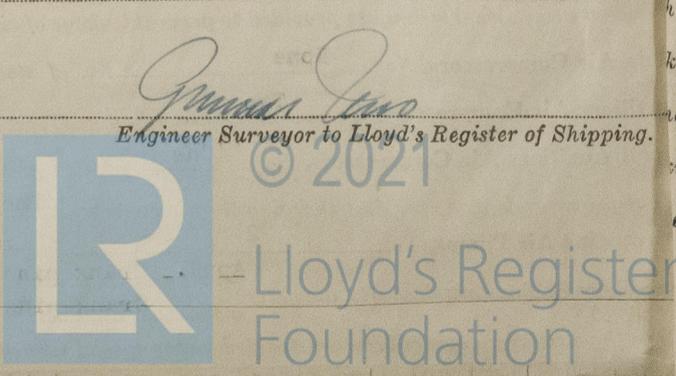
Air receiver Donkey Engine Box ... Kr. 330:00 When received --- 19 ---

Travelling Expenses (if any) £

Committee's Minute FRI 9 JAN 1953

Assigned + LMC 11,52 Oil Eng

CL 20018016



Gothenburg Office. Certificate (if required) to be sent to ...