

REPORT ON OIL ENGINE MACHINERY.

No. 12634

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Date of writing Report 19th Oct 39 When handed in at Local Office 20th Oct 39 Port of GOTHENBURG

No. in Survey held at GOTHENBURG Date, First Survey 19th January Last Survey 12th Oct 1939

SUPPL. 3 Single 40560 on the Twin Screw vessel M/S PONTFIELD. Tons ^{Gross} _{Net}

Built at GOTHENBURG By whom built ERIKSBERGS M.V.A.B. Yard No. 289 When built 1939
Engines made at GOTHENBURG By whom made ERIKSBERGS M.V.A.B. Engine No. 226 When made 1939
Donkey Boilers made at GOTHENBURG By whom made ERIKSBERGS M.V.A.B. Boiler No. 597-8 When made 1939
Brake Horse Power 3680 Owners HUNTING & SON, LTD. Port belonging to NEWCASTLE
Nom. Horse Power as per Rule 644 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES
Trade for which vessel is intended OPEN SEA SERVICE

OIL ENGINES, &c. Type of Engines Vert. Diesel oil eng. Crosshead type Solid inject. 2 or 4 stroke cycle 2 Single or double acting Double

Maximum pressure in cylinders 49 kg/cm² diameter of cylinders 17 1/16" = 450 mm Length of stroke 177/4" = 420 mm No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure TOP = 6.2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 840 mm Is there a bearing between each crank Yes

Revolutions per minute 125 Flywheel 3900 kgm² BALANCE Weights 19520 kgm² Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, Solid forged dia. of journals 360 mm Crank pin dia. 360 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 216-224 mm

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter approved 443 mm Thrust Shaft, diameter at collars approved 360 mm

Tube Shaft, diameter as per Rule Screw Shaft, diameter approved 450 mm Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 21.4 mm Thickness between bushes as per Rule 16 mm Is the after end of the liner made watertight in the propeller boss Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Liner in 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 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 the tube shaft Yes

Propeller, dia. 5029 mm Pitch 3325 mm No. of blades Four Material Cast Iron Length of Bearing in Stern Bush next to and supporting propeller 2180 mm

Method of reversing Engines Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication Forced

Thickness of cylinder liners 31 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged

Cooling Water Pumps, No. 2 1 freshwater 175 tons/hour each 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 None Stroke None Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size One bilge pump, 20 tons/hour / 1 ballast pump, 150 tons/hour / 1 duplex, 190 x 150 x 250 mm How driven electrically electrically out steam

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 Yes

Ballast Pumps, No. and size One, 150 tons/hour. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size Two, 175 tons/hour each

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 Four - 3 1/2" In Pump Room None

In Holds, &c. Two - 2 1/2" from dry cargo hold, One - 2 1/2" from fore pump room, Two - 4" from main pump room Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One - 3 1/2", One - 4", One - 5"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions 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 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 Yes

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 Is a drain fitted at the lowest part of each receiver

Injection Air Receivers, No. None Cubic capacity of each Internal diameter thickness

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

Starting Air Receivers, No. One for aux. engines Total cubic capacity 180 litres Internal diameter 370 mm thickness 14 mm

Seamless, lap welded or riveted longitudinal joint Material S.M. steel Range of tensile strength 37.8-38.7 kg/mm² Working pressure

IS A DONKEY BOILER FITTED? Yes, two donkey boilers If so, is a report now forwarded? Yes

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting No, 7.8.37 Receivers No, 7.8.37 & 4.9.37 Separate Fuel Tanks No, 31.5.38

Donkey Boilers No, 14.10.37 General Pumping Arrangements No, 25.11.37 Pumping Arrangements in Machinery Space No, 25.11.37

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied 6 fuel valves complete, 1 exhaust top piston valve complete, 1 exhaust bottom piston valve complete, 1 top cylinder liner, 1 bottom cylinder liner, 1 piston, 1 piston rod, 1 pistonrod liner, 1 propeller shaft, two impellers for scavenging air blowers.

The foregoing is a correct description,
Eriksbergs Mek. Verkstaads Aktiebolag
Gunnar Engberg

Manufacturer.

Dates of Survey while building

During progress of work in shops--	1939 Jan. 19, Febr. 13, March 14, 21, 23, 28, April 5, 6, 13, 14, 15, 19, 25, 26, 28, May 3, 9, 10, 11, 12, 19, 24, 26, 27, 30, 30, 31, June 3, 5, 9, 13, 19, 22, 28, 30, July 4, 6, 8, 12, 15, 17, 19, 20, 21, 26, 28, Aug. 2, 9, 18, 21, 25, Sept. 19, 25, 26.
During erection on board vessel--	1939 July 31, Aug. 14, 28, 31, Sept. 6, 12, 15, 16, 18, 20, 23, 25, 30, Oct. 3, 3, 4, 5, 6, 7, 9, 10, 11, 12.
Total No. of visits	77

Dates of Examination of principal parts—Cylinders 25.4 & 10.5.39. Covers 25.4 & 10.5.39. Pistons 9.5.39. Rods 26.4.39. Connecting rods 23.3.39.

Crank shaft 5.4.39. Flywheel shaft Thrust shaft 5.4.39. Intermediate shafts 28.4.39. Tube shaft

Screw shaft 22.6.39. Propeller 31.7.39. Stern tube 13.2.39. Engine seatings 20.7.39. Engines holding down bolts 31.7.39.

Completion of fitting sea connections 20.7.39. Completion of pumping arrangements 10.10.39. Engines tried under working conditions 7.10.39.

Crank shaft, Material S.M. steel Identification Mark LLOYD'S 1332-3 T.W. 22.3.39. Flywheel shaft, Material Identification Mark LLOYD'S 2136-7 28.4.39. SA

Thrust shaft, Material S.M. steel Identification Mark LLOYD'S 1334 T.W. 22.3.39. Intermediate shafts, Material S.M. steel Identification Marks LLOYD'S 2154-5 22.6.39. SA

Tube shaft, Material Identification Mark Screw shaft, Material S.M. steel Identification Mark 22.6.39. SA

Identification Marks on Air Receivers Main, 2 off. Nos 535 & 536 LLOYD'S TEST 40KG WP 25KG SA 26.7.39. Aux. No 608 LLOYD'S TEST 80ATH. WP 40ATH. V.S. 21.6.37.

Is the flash point of the oil to be used over 150° F.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

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

Is this machinery duplicate of a previous case If so, state name of vessel % Solør % Frondheim.

General Remarks (State quality of workmanship, opinions as to class, &c.) The main- and auxiliary engines of this vessel have been built under special survey and all the requirements of the Rules have been complied with. The shafting as per forging reports attached. Test sheets of donkey boiler and starting air receivers material are also attached. The workmanship is good and the material fulfils the requirements of the Rules. The dimensions are as specified in accordance with the Rules and approved plans. The auxiliary machinery as per special report now sent. The main- and auxiliary engines have been tested under working conditions and found to work satisfactorily. The machinery of this vessel is eligible in my opinion to be classed in the Register Book of this Society with notation of % LMC 10.39. Working pressure of donkey boilers 142 lbs/□

Surveyors Office, Gothenburg

The amount of Entry Fee .. KR : 114:00 When applied for, 30th Oct. 1939

Special .. KR : 2037:00

Donkey Boiler Fee ... £ : : When received, 29.11.1939

START AIR REC. FEE KR : 120:00

Travelling Expenses (if any)

Committee's Minute TUE 14 NOV 1939

Assigned + LMB. 10.39 oil Lic
20B-142 lbs

J. Appelin
Engineer Surveyor to Lloyd's Register of Shipping.

