

57 MAR 1953

REPORT ON OIL ENGINE MACHINERY.

No. 19686

Received at London Office

Gothenburg

Writing Report 18th March 1953. When handed in at Local Office 26th March 1953 Port of

Survey held at Gothenburg Date, First Survey 2nd July, 1952 Last Survey 17th March, 1953. Number of Visits 29.

Single on the Triple Quadruple Screw vessel "MADELEINE" Tons Gross 10220 Net ---

Landskrona By whom built Öresundsvarvet Aktiebolag Yard No. 126 When built 1953.

Gothenburg By whom made Aktiebolaget Götaverken Engine No. 2503 When made 1953.

Boilers made at --- By whom made --- Boiler No. --- When made ---

Indicated Horse Power Maximum 6500 Service 1300 Owners A/B Verna Port belonging to Helsingborg

per Rule 1300 Is Refrigerating Machinery fitted for cargo purposes --- Is Electric Light fitted ---

for which vessel is intended General

ENGINES, &c. Type of Engines Heavy oil, 680/1500 VGS 9 2 or 4 stroke cycle 2 SC Single or double acting SA

Working pressure in cylinders 49 kgs/cm² Diameter of cylinders 680 mm Length of stroke 1500 mm No. of cylinders 9 No. of cranks 9

Indicated Pressure 6.75 Kgs/cm² Span of bearings (i.e., distance between inner edges of bearings in a crank) 974 mm. Is there a bearing between each crank Yes

Revolutions per minute Maximum 112. Minimum 12150 Means of ignition Compr. Kind of fuel used Diesel

Weight 1940 Kgs. Moment of inertia of flywheel (lbs. in² or Kg. cm²) 12150

Appd. dia. of journals 480/130 mm Crank pin dia 480/105 mm Crank webs Mid. length breadth --- Thickness parallel to axis 300 mm.

Intermediate Shafts, diameter as per Rule --- Thrust Shaft, diameter at collars as per Rule 480 mm.

Screw Shaft, diameter as per Rule --- Is the tube screw shaft fitted with a continuous liner

Thickness between bushes as per Rule --- Is the after end of the liner made watertight in the stern tube

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

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

If two liners are fitted, is the shaft lapped or protected between the liners. Is an approved Oil Gland fitted at the after

stern tube If so, state type Length of bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether moveable Total developed surface sq. feet

Kind of damper, if fitted None

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine Yes

Thickness of cylinder liners 50 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled

Working F.W. Cooling Water Pumps, No. and how driven

Spare F.W. S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Can one be overhauled while the other is at work

Pumps worked from the Main Engines, No. and capacity

No. and capacity of each How driven

cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

Power Driven Lubricating Oil Pumps, including spare pump, No. and size

Branch Bilge Suctions In pump room

Means arranged for circulating water through the Oil Cooler

In machinery spaces

Bilge Suctions to the engine room bilges, No. and size

All the bilge suction pipes in holds and tunnel well fitted with strum-boxes. 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

Are they fixed

All Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks

Are they high on the ship's side to be seen without lifting the platform plates. Are the overboard discharges above or below the deep water line

Are the blow off cocks fitted with a spigot and brass covering plate

How are they protected

Have they been tested as per Rule

All pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times

Is the shaft tunnel watertight Is it fitted with a watertight door worked from

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

Air Compressors, No. No. of stages diameters stroke driven by

Primary Air Compressors, No. No. of stages diameters stroke driven by

Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

Is provision made for first charging the air receivers

Underneath of each piston, also one separate scavenge pump to each cylinder

How driven by lever from the crossheads

Engines No. 2504 - 2505

Have they been made under survey Yes

Makers name Aktiebolaget Götaverken Position of each in engine room

Report No. Attached herewith.

Lloyd's Register Foundation

Handwritten notes: JM, 15/4/53, See Got. 174, 22/4/53

AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate..... 5a.

State full details of safety devices.....
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..... Cubic capacity of each..... Internal diameter..... thickness.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....
Starting Air Receivers, No..... Total cubic capacity..... Internal diameter..... thickness.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....

IS A DONKEY BOILER FITTED..... 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 Appd. London 26.9.1952. Receivers..... Separate fuel tank.....
(If not, state date of approval)
Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....
Oil fuel burning arrangements.....
Have Torsional Vibration characteristics been approved..... Yes..... Date and particulars of approval..... 26.9.1952 for a service speed of 112 R.P.M.

SPARE GEAR.

Has the spare gear required by the Rules been supplied..... Yes..... State if for "short voyages" only.....
State the principal additional spare gear supplied.....

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

ARTUR OLSEN GÖTAVERKEN
Manufacturer.

Dates of Survey while building
During progress of work in shops - - 2.7.1952 - 17.3.1953.
During erection on board vessel - - -
Total No. of visits 29.
Dates of examination of principal parts—Cylinders 5, 8/1-53, 18, 19, 30/12-52, 17/11-52 & Covers 2/1-53. Pistons 3, 4/2-1953. Rods 30.12.52 Connecting rods 5.
Crank shaft 19.11.52. Flywheel shaft --- Thrust shaft 19.11.52. Intermediate shafts --- Tube shaft ---
Screw shaft --- Propeller --- Stern tube --- Engine seatings --- Engine holding down bolts ---
Completion of fitting sea connections --- Completion of pumping arrangements --- Engines tried under working conditions 25.
Crank shaft, material S.M. Steel Identification mark LL No. 1248/9 SB 13.11.52. Flywheel shaft, material --- Identification mark ---
Thrust shaft, material S.M. Steel Identification mark LL No. 1250 SB 13.11.52. Intermediate shafts, material --- Identification marks ---
Tube shaft, material --- Identification mark --- Screw shaft, material --- Identification mark ---
Identification marks on air receivers ---

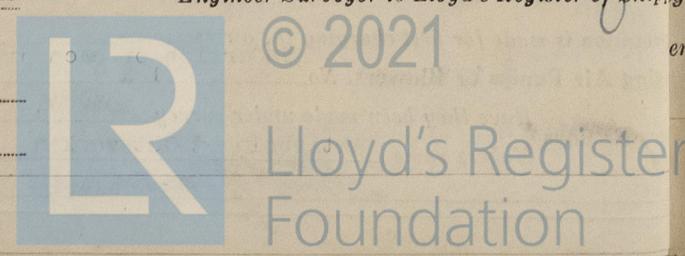
Welded receivers, state Makers' Name ---
Is the flash point of the oil to be used over 150°F Yes
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ---
Full description of fire extinguishing apparatus fitted in machinery spaces ---
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo --- If so, have the requirements of the Rules been complied with ---
What is the special notation desired ---
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.S. "Bia" Goth. F.E. Report No. 16

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.) This machinery has been built in accordance with the Rules and approved plans. The workmanship and materials used are good and the electric welding of the engine bedplate and frames has been carried out to my satisfaction and on completion of full power trials of the engine the bedplates and frames were specially examined and found sound and free from defects. Certificates in respect of crank- and thrust shafts are attached herewith.
The engine has been examined under full working power in shop and found to work satisfactorily, and is in my opinion, to be classed LMC with date when securely fitted on board the ship under the inspection and to the satisfaction of the Society's Surveyors.

The amount of Entry Fee ... £ --- : --- :
Special ... Kr. 3990:00 : When applied for 25th March 19 53
EW bedplates and frames SS Kr. 620:00 : When received --- 19 ---
Travelling Expenses (if any) £ --- : --- :
Committee's Minute

TUESDAY 21 JUL 1953

Assigned See F.E. wshy. rph.



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.