

REPORT ON OIL ENGINE MACHINERY.

No. 2023

Received at London Office
HAMBURG

2-OCT-1952

Date of writing Report **8th Sept. 19 52** When handed in at Local Office 19 **52** Port of **HAMBURG**

No. in Reg. Book **95289** Survey held at **HAMBURG** Date, First Survey **8.2.52** Last Survey **30.8. 19 52**
Number of Visits **41**

Single on the **MAIN** Screw vessel **"MOSSIL"** Tons Gross **11.348**
Triple Net **6.713**
Quadruple

Built at **Hamburg** By whom built **Deutsche Werft A.G.,** Yard No. **640** When built **1952**

Engines made at **Augsburg** By whom made **M.A.N.** Engine No. **501528** When made **1952**

Donkey Boilers made at **Hamburg** By whom made **Deutsche Werft A.G.,** Boiler No. **1200/01** When made **1952**

Brake Horse Power { Maximum **6650** Owners **Compania de Navegacion Martora S.S.** Port belonging to **Panama City**
Service **6650**
M.N. as per Rule **1330** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**

Trade for which vessel is intended **International**

ENGINES, &c. — Type of Engines **Heavy Oil, Type K 10 Z 70/120 A** 2 or 4 stroke cycle **2** Single or double acting **single**

Maximum pressure in cylinders **50 kg/cm²** Diameter of cylinders **700 mm** Length of stroke **1200 mm** No. of cylinders **10** No. of cranks **10**

Indicated Pressure **6.25 kgs/cm²** Span of bearings (i.e., distance between inner edges of bearings in line of a crank) **920 mm** Is there a bearing between each crank **yes** Revolutions per minute { Maximum **125 - 6650**
Service **125 - 6650**

Flywheel dia. **-** Weight **-** Moment of inertia of flywheel (lbs. in² or Kg. cm²) **-** Means of ignition **comp** Kind of fuel used **diesel**

Crank pin dia. **465 mm** Crank webs { Mid. length breadth **880 mm max.** Thickness parallel to axis **285 mm**
Mid. length thickness **285 mm** shrunk Thickness around eye-hole **205 mm**

Intermediate Shafts, diameter **385 mm** Thrust Shaft, diameter at collars **450 mm**

Screw Shaft, diameter **446 mm** Is the tube screw shaft fitted with a continuous liner **yes**

Bronze Liners, thickness in way of bushes **25 + 24 mm** Thickness between bushes **25 + 24 mm** Is the after end of the liner made watertight in the stern tube **yes**

Propeller, dia. **5300 mm** Pitch **3890 mm** No. of blades **4** Material **bronze** whether moveable **no** Total developed surface **9,632 sq. feet**

Method of reversing Engines **direct** Is a governor or other arrangement fitted to prevent racing of the engine **yes** Means of lubrication **forced** Thickness of cylinder liners **45 mm** Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and silencers water cooled **lagged with non-conducting material lagged**

Cooling Water Pumps, No. and how driven **3 - 400 m³/h** Working F.W. **1**

Large Pumps worked from the Main Engines, No. and capacity **none** Can one be overhauled while the other is at work **-**

Pumps connected to the Main Bilge Line { No. and capacity of each **1 - 75 m³/h (Bilge Pump)** **1 - 200 m³/h (Condenser cooling water pump)**
How driven **electric** **steam**

General service pump in engine room **2 - 65 m³/h**

Power Driven Lubricating Oil Pumps, including spare pump, No. and size **1 - 65 m³/h in Forepeak pump room**

Branch Bilge Suctions **Machinery, Cargo + F.P. pump room**

In machinery spaces **2 - 80 mm (fwd) 1 - 80 mm (aft) 1 - 80 mm (cofferdam)** In pump room **5-80 mm in each**

Direct Bilge Suctions to the engine room bilges, No. and size **1 - 125 mm (Bilge pump) 1 - 100 mm (Gen. Service Pp.) 1 - 175 mm (Cond. cooling.w.Pp.)**

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 **valves and cocks** 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**

How are they protected **-**

Forepeak suction (fwd.stbd.deepT) 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 shaft tunnel watertight **none** 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. **2** No. of stages **2** diameters **140 + 160 mm** stroke **130 mm** driven by **DC motor**

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

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

What provision is made for first charging the air receivers **Compressor to be driven by power from Steam Generator Engine**

Scavenging Air Pumps or Blowers, No. **1 ME attached** How driven **under - piston supercharging**

Auxiliary Engines { Have they been made under survey **yes** Engine Nos. **430 740 - 430 741 - 430 742**
Makers name **M.A.N.** Position of each in engine room **all port side**
inboard, outboard and aft Report No. **121 - Augsburg 21.5.52**

Register

010300-010308-0037

AIR RECEIVERS:—Have they been made under survey **yes** State No. of report or certificate **2 Ham. No. 1753**
 State full details of safety devices **1 safety valve on each stage of compressor, Relief valve on discharge line**
 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. **-** 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 **16 m³** Internal diameter **1543 mm** thickness **28.5 mm**
 Seamless, welded or riveted longitudinal joint **welded** Material **SMOH steel** Range of tensile strength **Shell 44 - 50 kgs/mm²** Working pressure **30 At**
 Ends **41 - 47 kg/sq.mm**
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 **yes**
PLANS. Are approved plans forwarded herewith for shafting **18.1.51 + 23.7.51** Receivers **6.3.51** Separate fuel tanks **-**
 Donkey boilers **25.1.51** General pumping arrangements **8.3.52** Pumping arrangements in machinery space **8.3.52**
 Oil fuel burning arrangements **8.3.52**
 Have Torsional Vibration characteristics been approved **yes** Date and particulars of approval **10.12.51 for service speed 12**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **yes** State if for "short voyages" only **no, Ocean going**
 State the principal additional spare gear supplied **spare screw shaft**

**DEUTSCHE WERFT
AKTIENGESELLSCHAFT**

The foregoing is a correct description, *[Signature]* Manufacturer.

Dates of Survey while building
 During progress of work in shops - **1952. Feb. 8, 28, Mar. 11, 15, Apr. 8, May 2, 13, 20, 23, 26, 28, 30, Jun. 5, 13, 17, 23, Jul. 9, Aug. 9.**
 During erection on board vessel - **1952. Apr. 22, Jul. 1, 10, 17, 18, 22, 23, 30, Aug. 4, 6, 7, 12, 13, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30.**
 Total No. of visits **41**

Dates of examination of principal parts—Cylinders **-** Covers **-** Pistons **-** Rods **-** Connecting rods **-**
 Crank shaft **-** Flywheel shaft **-** Thrust shaft **-** Intermediate shafts **-** Tube shaft **-**
 Screw shaft **23.2.52** Propeller **12.8.52** Stern tube **3.7.52** Engine seatings **-** Engine holding down bolts **14.8.52**
 Completion of fitting sea connections **17.7.52** Completion of pumping arrangements **28.8.52** Engines tried under working conditions **30.8.52**
 Crank shaft, material **SMOH steel** Identification mark **HK 928 11.1.52**
 Thrust shaft, material **SMOH steel** Identification mark **see crankshaft** Intermediate shafts, material **SMOH steel** Identification marks **FS 628 28**
 Tube shaft, material **SMOH steel** Identification mark **-** Screw shaft, material **SMOH steel** Identification mark **FS 666 29.9.**
 Identification marks on air receivers **LLOYD'S TEST 49 kgs WP 30 kgs 1753 A + B 17.6.52 LDT** **AK 23.2.52**

Welded receivers, state Makers' Name **Deutsche Werft A.G., Nos. 1202 and 1203**
 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**
 Full description of fire extinguishing apparatus fitted in machinery spaces **Steam smothering, flooding and chemical extinguishers**
 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 **-**
 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 **"MOSTANK"**

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.) **This engine has been constructed under Special Survey in conformity with the Society's Rules and Regulations, the approved plans and the Secretary's letters. The material and workmanship are good. The engine has been examined during construction, properly installed in the above vessel and found satisfactory under working conditions, and is eligible, in my opinion for classification with the notation * LMC 8,52, Oil Engines 2 SCSA 10 Cyl., 27 9/16" - 47 1/4", 6650 BHP, 2 DB 170,7 lbs, 1 DB (WT) 170,7 lbs, TS CL.**
The Machinery is not to be operated continuously between 34 and 42 and 68 & 80 RPM. A notice to this effect has been fitted to the engine control platform.

The amount of Entry Fee ... £
 Special ... £ **176 0**
 Donkey Boiler Fee... £ **146 0**
 Travelling Expenses (if any) £ **36 0**
 When applied for **19**
 When received **19**

At rendered from London 17/10/52

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI 24 OCT 1952**
 Assigned **+ LMC 8,52 Oil Eng. CL 2DB 171/b.**



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