

REPORT ON OIL ENGINE MACHINERY.

No. 140

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ate of writing Report 22 Aug. 1952 When handed in at Local Office 19 Port of AUGSBURG

o. in Survey held at Augsburg Date, First Survey 27th August, 1951 Last Survey 2nd August, 1952
eg. Book. Number of Visits

Single
on the Twin
Triple
Quadruple
Screw vessel M.V. Mosoit

Tons Gross
Net

uilt at Hamburg By whom built Deutsche Werft A.G. Yard No. 640 When built
Engines made at Augsburg By whom made Maschinenfabrik Augsburg-Nürnberg A.G. Engine No. 501528 When made 1951/52
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power { Maximum
Service 6650 Owners Neptune Shipping Co. Ltda., Panama Port belonging to Panama
I.N. as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

IL ENGINES, &c. — Type of Engines M.A.N. Standard Type K10270/120A2 or 4 stroke cycle 2 Single or double acting single
Maximum pressure in cylinders 50 atm. Diameter of cylinders 700 mm Length of stroke 1200 mm No. of cylinders 10 No. of cranks 10
Mean Indicated Pressure 6.25 atm. Span of bearings (i.e., distance between inner edges of bearings in
way of a crank) 1250 mm Is there a bearing between each crank yes Revolutions per minute { Maximum
Service 125
Flywheel dia. 2080 mm Weight 4050 kg Moment of inertia of flywheel (lbs. in² or Kg. cm²) 12200 kgm² Means of ignition air inj Kind of fuel used Diesel oil
Crank Shaft, Solid forged
Semi built
All built dia. of journals as per Rule as fitted 465 mm Crank pin dia. 465 mm Crank webs Mid. length breadth 880 mm Thickness parallel to axis
Mid. length thickness 285 mm Thickness around eye-hole 205 mm
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the { tube
screw } shaft fitted with a continuous liner
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the
propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
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 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland fitted at the after
end of 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
Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm²) Kind of damper, if fitted
Method of reversing Engines hydraulic 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
for 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 Cooling Water Pumps, No. and how driven Working F.W.
S.W. Spare F.W. S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Bilge Pumps worked from the Main Engines, No. and capacity Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line { No. and capacity of each
How driven
Is the 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
arrangements
Ballast Pumps, No. and capacity Power Driven Lubricating Oil Pumps, including spare pump, No. and size
Are two independent means arranged for circulating water through the Oil Cooler Branch Bilge Suctions
No. and size:—In machinery spaces In pump room
In holds, &c.
Direct Bilge Suctions to the engine room bilges, No. and size
Are 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 all Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed
sufficiently 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 they each fitted with a discharge valve always accessible on the plating of the vessel Are the blow off cocks fitted with a spigot and brass covering plate
What pipes pass through the bunkers How are they protected
What pipes pass through the deep tanks Have they been tested as per Rule
Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times
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 Is the shaft tunnel watertight 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. No. of stages diameters stroke driven by
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
Scavenging Air Pumps or Blowers, No. 1 How driven by main engine
Auxiliary Engines Have they been made under survey yes Engine Nos. 430 740/741/742
Makers name M.A.N. Position of each in engine room
Report No. F.E.Rpt. No. 121

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AIR RECEIVERS:—Have they been made under survey

State No. of report or certificate

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 appr. 4.6.51

(If not, state date of approval)

Receivers

Separate fuel tanks

Donkey boilers

General pumping arrangements

Pumping arrangements in machinery space

Oil fuel burning arrangements

Have Torsional Vibration characteristics been approved

to be form

Date and particulars of approval

by Yard

SPARE GEAR.

Has the spare gear required by the Rules been supplied

follows

State if for "short voyages" only

State the principal additional spare gear supplied

Maschinenfabrik Augsburg-Münchener Maschinenfabrik

Manufacturer

Dates of Survey while building
During progress of work in shops - 1951: Aug., 27; Sept., 12.26; Oct., 8.10.12.31; Nov., 12.16.21.23.29; Dec., 15.17.2
During erection on board vessel - 1952: Jan., 3.8.12.15.17.18.19.22.23.24.26.30; Febr., 5.6.8.19.20.22.26.28;
March, 1.5.6.7.11.14.13.15.19.20.24.25.27.29; April, 2.7.10.22.25.28.29.30;
May, 5.7.8.10.21.23.27.28.31; June, 4.6.10.11.13.14.16.17.18.19.20.21.24.30;
July, 3.4.9.10.11.12.16.18.23; Aug., 2.-
Total No. of visits ninety

Dates of examination of principal parts—Cylinders 11.13.6.52 Covers 17.6.52 Pistons 6.11.18.6.52 Rods 19.20.6.52 Connecting rods 28.4.52

Crank shaft 17.1.52 Flywheel shaft Thrust shaft see cranksh. 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

Crank shaft, material S.M. Steel Identification mark HK 181/928 17.1.52 Flywheel shaft, material Identification mark

Thrust shaft, material see cranksh. Identification mark HK-877 Intermediate shafts, material Identification marks

Tube shaft, material Identification mark 17.1.52 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

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 Standard Type If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

This heavy oil main engine has been constructed in accordance with the Rules and Regulations, the approved plans, the Secretary's letters and instructions thereto. The material used in the construction is good and the workmanship was found to be satisfactory. The engine has been tested running on Makers test bed under full-, over-, and partial loads with satisfactory results during several hours.

In our opinion the vessel for which this engine is intended will be eligible for the notation

+ L.M.C. (with date) when the whole machinery has been satisfactorily fitted aboard the vessel and has been tried under full working conditions.

The amount of Entry Fee 665/1342 1214 3810

Welded steel plates DM 484

Special ... £ DM 180

Test bed trial Donkey Boiler Fee... £

Travelling Expenses (if any) £ DM 96

When applied for 19

When received 19

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI 24 OCT 1952

Assigned See F.E. mch. rph. Ham 2023

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