

AUXILIARY REPORT ON OIL ENGINE MACHINERY.

No. 7675.

Date of writing Report 10th April 1928 When handed in at Local Office

Received at London Office

Port of Copenhagen

14 APR 1928

No. in Survey held at Copenhagen
Reg. Book.Date, First Survey 28th July 1927 Last Survey 9th Jan 1928
Number of Visits 24

✓ on the Single } Screw vessel
 Twin }
 Triple }
 Quadruple }

Tons { Gross ✓
 Net ✓Built at TokioBy whom built Mitsui Bussan KaishaYard No. 133 When built ✓Engines made at CopenhagenBy whom made Apt. Burmeister & WainEngine No. 1461 When made 1927-28Donkey Boilers made at 1 off - 50

By whom made ✓

Boiler No. Designated MITSUBI 17 When made ✓Brake Horse Power 1 off - 100

Owners ✓

Port belonging to

Nom. Horse Power as per Rule ✓

Is Refrigerating Machinery fitted for cargo purposes ✓

Is Electric Light fitted ✓

Trade for which vessel is intended

Auxiliary
MAIN ENGINES, &c.—Type of Engines Vertical Diesel Oil Engines (Frank type) 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders { One No. of cranks { One
 No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 362 mm Is there a bearing between each crank Yes
 Revolutions per minute 400 Flywheel dia. 1200 mm Weight 2500 kg Means of ignition Air compression Kind of fuel used Crude oil, flash point above 150°F

Shaft, dia. of journals as per Rule 161.6 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 300 x 350 mm shrunk Thickness parallel to axis ✓
 Mid. length thickness 95 mm Thickness around eye-hole ✓

Shaft, diameter as per Rule as fitted

Intermediate Shafts, diameter as per Rule as fitted

Thrust Shaft, diameter at collars as per Rule as fitted

Screw Shaft, diameter as per Rule as fitted

Is the { tube } shaft fitted with a continuous liner { screw }

Liners, thickness in way of bushes as per Rule as fitted

Thickness between bushes as per rule as fitted

Is the after end of the liner made watertight in the

If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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 the shaft is lapped or protected between the liners

Is an approved Oil Gland or other appliance fitted at the after

tube shaft

Length of Bearing in Stern Bush next to and supporting propeller

Reversing Engines
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched
 Means of lubrication

Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with

Insulating material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Connected to the Main Bilge Line { No. and Size How driven

Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

Independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size:—In Machinery Spaces

&c.

Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Bilge Suction pipes in Holds and Tunnel Wall fitted with strum-bones Are the Bilge Suctions in the Machinery Spaces

Readily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Read 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

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

How are they protected

Have they been tested as per Rule

Accesses, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Compressors, No. No. of stages 1-2 stage Diameters A. B. C. Stroke Driven by

Air Compressors, No. One to each engine No. of stages 1-3 Diameters 318 - 285 - 78 Stroke 170 Driven by Auxiliary engines

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Boiling Air Pumps, No. Diameter Stroke Driven by

Engines crank shafts, diameter as per Rule 161.6 mm as fitted 170

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces ✓

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. 2 off Cubic capacity of each 25 Litres Internal diameter 7 1/4" = 185 mm thickness 3/8" = 9.5 mm

Seamless, lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 52.4 - 47.5 kg/cm² Working pressure by Rules 99.3 kg/cm²

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness Working pressure by Rules

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

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting for crank shafts (If not, state date of approval)

Receivers ✓

Separate Tanks ✓

Donkey Boilers ✓

General Pumping Arrangements ✓

Oil Fuel Burning Arrangements ✓

SPARE GEAR As per accompanying list, — to be checked when placed onboard the vessel.

The foregoing is a correct description,

BURMEISTER & WAINSKIN- OG SKIBSBYGGERI

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 28 July; 2 Aug; 8, 20, 24, 27, 28, 29, 31 Oct; 1, 3, 5, 8, 10, 24 Nov; 3, 14 Dec 1927, - 9 Jan 1928.
During erection on board vessel --
Total No. of visits 24.

Dates of Examination of principal parts—Cylinders and Covers 28/7, 2/8, 20/26/27, 29/11, 24/10 27 Rods ✓ Connecting rods 28/7, 2/8, 8/10, 29/11
Crank shafts 28/7, 2/8, 15/10, 27. Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓
Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings ✓ Engines holding down bolts ✓
Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions ✓
Crank shaft, Material SMI Steel Identification Mark 15.10.27. Flywheel shaft, Material ✓ Identification Mark ✓
Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material ✓ Identification Marks ✓
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material ✓ Identification Mark ✓

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 ✓

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 ✓

Is this machinery duplicate of a previous case ✓

If so, state name of vessel ✓

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

The 2 auxiliary diesel oil engines as above described have been constructed under Special Survey, and in accordance with the Rules, the approved plans and the Secretary's letter E. dated the 10th August 1927. The material used in the construction of the engines and the air receivers have been tested as required by the Rules, either by us or as per certificates produced.

The engines have been tested under full power working condition on the test bed in shop and found to work satisfactory.

The amount of Entry Fee ... £ : : When applied for,
Special Survey ... £ 200.00 : 12.4. 1928.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned



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