

# 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

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 Tokio

By whom built Mitsui Bussan Kaisha

Yard No. 133 When built

Engines made at Copenhagen

By whom made Apt. Burmeister & Wain

Engine No. 1462 When made 1927-28

Donkey Boilers made at 1 off - 50

By whom made Designated MITSUBI

Boiler No. 1461 When made

Brake Horse Power 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

Vertical Diesel Oil Engines (Trunk type) 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders two No. of cranks two

Number 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 2710 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 Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule

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

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

stern tube. 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

Are the liners fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the stern tube shaft

Length of Bearing in Stern Bush next to and supporting propeller

Number of 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

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

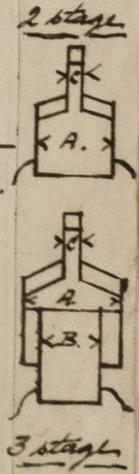
Water pumps connected to the Main Bilge Line No. and Size How driven

Water 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

Water pumps, No. and size:—In Machinery Spaces

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 SM. Steel Range of tensile strength 52.4 - 47.5 kg/cm<sup>2</sup> Working pressure by Rules 99.3 kg/cm<sup>2</sup>  
Starting Air Receivers, No.  Total cubic capacity  Internal diameter  thickness   
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 SKIBBYGGERI**

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 28 July; 2 Aug; 8, 20, 21, 22, 23, 24, 25, 26, 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 27.

Dates of Examination of principal parts—Cylinders and Covers 28/7, 2/8, 20/26/27, 20/11, 24/10 27 Rods  Connecting rods 28/7, 2/8, 8/10, 20/11  
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 LLOYD'S No 8800, 8807 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.

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

The amount of Entry Fee ... £ : :  
Special Survey ... £ 200.00 : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 12.4.1928.  
When received, 19.

*A. E. F. J. J.*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

