

REPORT ON OIL ENGINE MACHINERY.

No. 9745
30 OCT 1936

Received at London Office

Date of writing Report 12-9-36 When handed in at Local Office 17-9-36 Port of KOBE

No. in Survey held at TAMA Date, First Survey 28-9-35 Last Survey 31-8-1936
Reg. Book. Number of Visits 63

on the Single Screw ~~vessel~~ MOTORSHIP "TOKYO MARU" Tons { Gross 6486.01
Net 3863.68

Built at TAMA By whom built MITSUI BUSSAN KAISHA Yard No. 217 When built 1936

Engines made at TAMA By whom made MITSUI BUSSAN KAISHA Engine No. 108 When made 1936

Donkey Boilers made at TAMA By whom made MITSUI BUSSAN KAISHA Boiler No. 130 When made 1936

Brake Horse Power 7,000 Owners SETTSU SHOSEN K. K. Port belonging to OSAKA

Nom. Horse Power as per Rule 1,231 Is Refrigerating Machinery fitted for cargo purposes YES Is Electric Light fitted YES

Trade for which vessel is intended DRY AND PERISHABLE CARGOES 55/8

OIL ENGINES, &c.—Type of Engines BURMEISTER AND WAIN 2 or 4 stroke cycle 2 Single or double acting DOUBLE

Maximum pressure in cylinders 45 Kg/cm² Diameter of cylinders 620 mm Length of stroke 1,400 mm No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 946 mm Is there a bearing between each crank YES

Revolutions per minute 110 TURNING WHEEL dia. 1,975 mm Weight 2,200 Kgs Means of ignition COMPRESSION Kind of fuel used HEAVY OIL

Crank Shaft, dia. of journals as per Rule 483 mm Crank pin dia. 485 mm Crank Webs Mid. length breadth 860 mm Thickness parallel to axis 305 mm
as fitted 485 mm (115% HOLLOW) (115% HOLLOW) M. d. length thickness 285 mm shrunk Thickness around eyehole 232.5 mm

SECONDARY CRANK Inter Shaft, diameter as per Rule 424 mm * Thrust Shaft, diameter at collars as per Rule 445 mm
as fitted 420 mm (SEE LETTER, DATED 23/7/36.) * as fitted 463 mm

Tube Shaft, diameter as per Rule 461 mm Is the tube shaft fitted with a continuous liner YES
as fitted 461 mm

Bronze Liners, thickness in way of bushes as per Rule 16 mm Thickness between bushes as per rule 16 mm Is the after end of the liner made watertight in the
as fitted 23 mm as fitted 23 mm propeller boss YES

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

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 YES

If two liners are fitted, is the shaft lapped or protected between the liners YES Is an approved Oil Gland or other appliance fitted at the after end of the tube YES

shaft YES If so, state type YES Length of Bearing in Stern Bush next to and supporting propeller 1,800 mm

Propeller, dia. 5,330 mm Pitch 5,058 mm No. of blades 4 Material MANGANESE BRONZE Whether Moveable YES Total Developed Surface 9.5 sq. METERS

Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication FORCED

Thickness of cylinder liners 42 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water-cooled or lagged with non-conducting material YES

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

Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

Bilge Pumps worked from the Main Engines, No. NONE Diameter YES Stroke YES Can one be overhauled while the other is at work YES

Pumps connected to the Main Bilge Line { No. and Size ONE INDEPENDENT BILGE & SANITARY PUMP - 15 M³/H EACH (E. MOTOR DRIVEN), ONE BILGE & How driven BALLAST PUMP - 110 M³/H (E. MOTOR DRIVEN) & ONE FIRE & G.S. PUMP - 110 M³/H (E. MOTOR DRIVEN),

Ballast Pumps, No. and size 1 @ 110 M³/H. Lubricating Oil Pumps, including Spare Pump, No. and size 2 (NO SPARE)

Are two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 5 - 75 mm, ONE - 75 mm (IN COFFERDAM) & 2 - 75 mm (IN SHAFT TUNNEL)

In Holds, &c. ONE - 65 mm FOR NO. 1 HOLD COFFERDAM, 2 - 75 mm FOR NOS. 1, 3, 4, 5 & 6 HOLDS EACH, & 2 - 90 mm FOR NO. 2 HOLD.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE - 150 mm, 2 - 130 mm & 2 - 65 mm

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES Are the Bilge Suctions 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 YES

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

What pipes pass through the bunkers NONE How are they protected YES

What pipes pass through the deep tanks YES 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 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 YES Is the Shaft Tunnel watertight YES Is it fitted with a watertight door YES worked from MAIN DECK LINE

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

Main Air Compressors, No. NONE No. of stages YES Diameters YES Stroke YES Driven by YES

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters HP - 280 mm, LP - 320 mm Stroke 200 mm Driven by AUX. DIESEL ENGINES

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters HP - 38 mm, LP - 89 mm Stroke 60 mm Driven by OIL ENGINE (4 BHP)

Scavenging Air Pumps, No. 1 (2 IMPELLORS) CAPACITY: 640 M³/min. Stroke YES Driven by 2 SETS OF ELECT. MOTORS

Auxiliary Engines crank shafts, diameter as per Rule 169 mm as fitted 180 mm

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 ACCESS BY MANHOLE

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

High Pressure Air Receivers, No. NONE Cubic capacity of each YES Internal diameter YES thickness YES

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

Starting Air Receivers, No. 2 Total cubic capacity 2 x 17 CUB. METER Internal diameter 1994 - 2050 mm thickness SHELL - 28 mm, END - 35 mm

Seamless, lap welded or riveted longitudinal joint RIVETED Material STEEL Range of tensile strength 26 - 30 T/O Working pressure by Rules 25.4 Kg/cm²

3. 1. 5



