

4b.

REPORT ON OIL ENGINE MACHINERY.

No. 7477

Received at London Office 25 SEP 1931

of writing Report

When handed in at Local Office

Port of

Kobe

in Survey held at

Harima

Date, First Survey 15 June

Last Survey 27 Aug 1931

Book.

Number of Visits

10

Single
Twin
Triple
Quadruple

Screw vessel

S.S. M.V. "FUJISAN MARU"

Tons { Gross 9524.3
Net 5440.26

at Harima

By whom built Harima S.B. Co. Ltd.

Yard No. 179 When built 1931

ines made at Augsburg

By whom made Maschinenfabrik Augsburg

Engine No. 330590 When made 1931

Boilers made at Harima

By whom made Harima S.B. Co. Ltd.

Boiler No. 179 When made 1931

Horse Power 7200

Owners Line Shoji K.K.

Port belonging to Fukuoka

Horse Power as per Rule 1857

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

for which vessel is intended

carrying petroleum in bulk.

ENGINES, &c.—Type of Engines D7.20 70/20 2 or 4 stroke cycle 2 Single or double acting double

Maximum pressure in cylinders 45 kg Diameter of cylinders Length of stroke No. of cylinders No. of cranks

No. of bearings, adjacent to the Crank, measured from inner edge to inner edge Ice Bremen Rpt 1350 Is there a bearing between each crank

Revolutions per minute Flywheel dia. Weight Means of ignition Kind of fuel used

Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth Thickness parallel to axis

Wheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule 412 1/2 Thrust Shaft, diameter at collars as per Rule 420 1/2

Screw Shaft, diameter as per Rule 450 1/2 Is the screw shaft fitted with a continuous liner 460 1/2

Copper Liners, thickness in way of bushes as per Rule 20 1/2 Thickness between bushes as per rule 15-18 1/2 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

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 or other appliance fitted at the after end of the tube

If so, state type Length of Bearing in Stern Bush next to and supporting propeller 2080 1/2

Propeller, dia. 5400 Pitch 4600 No. of blades 4 Material Bronze whether Moveable yes Total Developed Surface 9.636 sq. feet

Method of reversing Engines direct 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

conducting material 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. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

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

Pumps connected to the Main Bilge Line No. and Size 10 120 Tons 10 20 Tons 10 9" x 12" x 10"

How driven 2 electric 1 steam

Ballast Pumps, No. and size 1 electric 120 T. 4 1 electric 9" x 12" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size 2 electric 65" x 50"

Are two independent means arranged for circulating water through the Oil Cooler 1 vertical 48" Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces 5" D 4" 2 direct 2 5 1/2"

Holds, &c. 2 2 1/2" in fore hold. Pump Room 10 2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 2 1/2" 4 1 1/2"

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

Is 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

That pipes pass through the bunkers none How are they protected

That 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 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 Is it fitted with a watertight door worked from

If of 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. 2 No. of stages 3 Diameters Stroke Driven by

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 20" x 95 1/2 Stroke 90 Driven by steam

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

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 washable down in sea

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

High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

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

Starting Air Receivers, No. 2 Total cubic capacity Internal diameter thickness

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

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IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded?

yes

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

9.9.30.

Receivers 11.6.30.

Separate Tanks

2.2.31.

Donkey Boilers 5.8.30. 24.5.30.

General Pumping Arrangements

9.9.30.

Oil Fuel Burning Arrangements

17.3.31.

SPARE GEAR

1 cylinder cover of each design with valves, casings, springs & fittings complete, 1 set of valves for one cylinder with springs & fittings complete, 1 cylinder liner for upper & lower cylinder, 3 sets of stuffing box packing rings for lower cylinder, 1 complete steering air valve & 7 sp, 1 main piston complete with rings, studs & nuts, 1 piston rod, 4 sets of piston rings, 1 set of telescopic cooling pipes for one piston, 1 set of studs and nuts for one cylinder cover of each design used, 1 crank pin bearing, 2 crosshead bearings, 1 pair of crank shaft bracers, 2 crank pin bearing bolts & nuts, 2 main bearing bolts & nuts, 1 set of bolts for one crank shaft coupling, 1 set of bolts for intermediate shaft coupling and many other spare parts of a minor nature.

The foregoing is a correct description,

As per Rules see Bremen Dept

Manufacturer.

31st August 1931.

Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits

June 1931. 15. 17. 22 July 1. 3. 17. 20 24 Aug 3. 19 27

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts 18.6.31 Tube shaft ✓
Screw shaft 18.6.31 Propeller 27.5.31 Stern tube 18.6.31 Engine seatings 3.6.31 Engines holding down bolts 3.7.31
Completion of fitting sea connections 3.6.31 Completion of pumping arrangements 3.8.31 Engines tried under working conditions 19.8.31
Crank shaft, Material ✓ Identification Mark ✓ Flywheel shaft, Material ✓ Identification Mark ✓
Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material steel Identification Marks ✓
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material steel 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 yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo yes

If so, have the requirements of the Rules been complied with yes

Is this machinery duplicate of a previous case no If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been installed under special survey in accordance with the requirements of the Rules & approved plans, the materials and workmanship are good and on completion was tested under full working conditions ahead & astern and found to be in order. The vessel is eligible, in my opinion, for the records of T.L.M.C. 8.31 T.S. (CL) 8.31 2 D.B. 200 lbs. 1 D.B. 100 lbs. ELECTRIC LIGHT. OIL ENGINES 25 C.D.A.

The amount of Entry Fee ... £ 12.00 : When applied for,
Special ... £ 439.00 : 27/8/1931
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ 1/9/1931

Committee's Minute Fri. 2 OCT 1931

Assigned

CERTIFICATE WRITTEN. T.L.M.C. 8.31 Oil Eng.

C.L. 2 D.B. 200 lbs. 1 D.B. (S) 100 lbs.

A. H. Garnett
Engineer-Surveyor to Lloyd's Register of Shipping.



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