

ed and a List

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* 19*31*

on the *Single* Screw vessel *S.S. M.V. FUJISAN MARU*

Number of Visits *10*

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 *Mitsubishi Engineering*

Engine No. *330590* When made *1931*

Boilers made at *Harima*

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

Boiler No. *179* When made *1931*

ke Horse Power *7200*

Owners *Line Hoji K.K.*

Port belonging to *Fuku*

n. Horse Power as per Rule *1857*

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted *yes*

de 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*

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

of bearings, adjacent to the Crank, measured from inner edge to inner edge *See Diagram Pk 1350* Is there a bearing between each crank

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

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

heel 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 *approved Bremen*

be Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted *450 2* Is the *100* screw shaft fitted with a continuous liner *yes*

onze Liners, thickness in way of bushes as per Rule as fitted *20.2 2* Thickness between bushes as per rule as fitted *15.15 2* Is the after end of the liner made watertight in the

oller boss *yes* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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

ft *no* If so, state type Length of Bearing in Stern Bush next to and supporting propeller *2080 2*

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

ethod of reversing Engines *direct* Is a governor or other arrangement fitted to prevent racing of the engine when declatched 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

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

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

umps connected to the Main Bilge Line { No. and Size *1 0 120 Tons 1 0 20 Tons 1 0 9" x 12" x 10"*

How driven *2 electric 1 steam*

llast Pumps, No. and size *1 elec 120 T. 4 1 steam 9 x 12 x 10* Lubricating Oil Pumps, including Spare Pump, No. and size *2 elec: 65 m³ x 50 m³*

two independent means arranged for circulating water through the Oil Cooler *1 vertical 48 m³* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

umps, No. and size:—In Machinery Spaces *5 0 4 2 direct 2 5 1/2*

Holds, &c. *2 2 3 in fore hold. Pump Room 1 @ 2*

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *2 2 5 1/2 4 1 0 4*

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

l from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *yes.*

re all Sea Connections fitted direct on the skin of the ship *yes* Are they fitted with Valves or Cocks. *yes*

re 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*

re 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.*

hat pipes pass through the bunkers *none* How are they protected

hat pipes pass through the deep tanks Have they been tested as per Rule

re all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times. *yes*

s 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

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

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

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

uxiliary Air Compressors, No. *2* No. of stages *3* Diameters Stroke Driven by

small Auxiliary Air Compressors, No. *1* No. of stages *2* Diameters *30 2 x 95 2* Stroke *90* Driven by *steam*

evacuating Air Pumps, No. Diameter Stroke Driven by

uxiliary Engines crank shafts, diameter as per Rule as fitted

IR 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 *manhole door in end*

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

W1343-0034



IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded?

yes

PLANS. Are approved plans forwarded herewith for Shafting

9.9.30.

Receivers 11.6.30.

Separate Tanks 2.2.31.

Donkey Boilers 5.8.30. 24.5.30.

(If not, state date of approval)

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 brasses, 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 hulls see Bremen kept

J. M. M. M.

Manufacturer. 31st August 1931.

Dates of Survey while building: During progress of work in shops - June 1931. 15. 17. 22; During erection on board vessel - July 1. 3. 17. 20 24; Aug 3. 19 27; Total No. of visits 10.

Dates of Examination of principal parts - Cylinders, Covers, Pistons, Rods, Connecting rods, Crank shaft, 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, Identification Mark, 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 yes; Is the vessel fitted for carrying oil as cargo yes; If so, have the requirements of the Rules been complied with yes.

General Remarks: 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. (C4) 8.31. 2 D.B. 200 lbs. 1 D.B. 100 lbs. ELECTRIC LIGHT. OIL ENGINES 2 S.C.D.A.

The amount of Entry Fee ... £ 12.00; Special ... £ 439.00; Donkey Boiler Fee ... £; Travelling Expenses (if any) £ See Hull Pt. 1/9/31.

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

Committee's Minute Fri. 2 OCT 1931

Assigned

T.L.M.C. 8.31 C.L. 2 D.B. 200 lb. OIL ENGINES 2 S.C.D.A. 1 D.B. (S) 100 lb.



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