

REPORT ON OIL ENGINE MACHINERY.

No. 6143

Received at London Office 11 11 1928

Date of writing Report 9-6-1928 When handed in at Local Office

Port of

No. in Survey held at
Reg. Book.

Lama.

Date, First Survey

26-9-27

Last Survey

9-6-

1928.

Number of Visits 42

Single
on the
Triple
Quadruple

Screw vessel

"TAKAMISAN MARU"

Tons

Gross 1992

Net 1099

At Lama By whom built Mitsui Bussan Kaisha. Yard No. 133. When built 1928
 Engines made at Lama By whom made Mitsui Bussan Kaisha. Engine No. 133. When made 1928
 Key Boiler made at Lama By whom made Mitsui Bussan Kaisha. Boiler No. 133. When made 1928
 Horse Power 950. Owners Mitsui Bussan Kaisha. Port belonging to Tokyo.
 n. Horse Power as per Rule 224. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.
 de for which vessel is intended China-Japan.

ENGINES, &c.—Type of Engines Diesel. Inverted pistons. 2 or 4 stroke cycle 4 Single or double acting Single.

imum pressure in cylinders 500 lbs sq. Diameter of cylinders 500 mm. Length of stroke 900 mm. No. of cylinders 6 No. of cranks 6

of bearings, adjacent to the Crank, measured from inner edge to inner edge 685 mm. Is there a bearing between each crank Yes.

utions per minute 160 Flywheel dia. 1900 mm. Weight 4.04 tons Means of ignition Diesel system Kind of fuel used Diesel oil F.P. about 150°

ank Shaft, dia. of journals as per Rule 3/10" as fitted 3/10" Crank pin dia. 3/10" Crank Webs Mid. length breadth 600 mm Thickness parallel to axis 195 mm

Wheel Shaft, diameter as per Rule 3/10" as fitted 3/10" Intermediate Shafts, diameter as per Rule 8 1/2" as fitted 8 1/2" Thrust Shaft, diameter at collars as per Rule 300 mm as fitted 300 mm

ie Shaft, diameter as per Rule 9.3" as fitted 9.5" Is the screw shaft fitted with a continuous liner Yes

ize Liners, thickness in way of bushes as per Rule 58" as fitted 5 11/16" A 5/8" Thickness between bushes as per rule 43" as fitted 7/16" Is the after end of the liner made watertight in the

eller boss Yes. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

he 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

wo liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after

of the tube shaft No. Length of Bearing in Stern Bush next to and supporting propeller 4'-0"

opeller, dia. 9'-6" Pitch 7'-3" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 28 sq. feet

ethod of reversing Engines Direct B.T.H. Sys. Is a governor or other arrangement fitted to prevent racing of the engine when decoupled Yes Means of lubrication

eed Feed. Thickness of cylinder liners 36 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

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

oling Water Pumps, No. One 50 ton. conn. to 100 ton Ball. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

ge Pumps worked from the Main Engines, No. 2 Diameter 150 mm Stroke 180 mm Can one be overhauled while the other is at work Yes

mps connected to the Main Bilge Line No. and Size One 100 ton (Ballast & bilge) One 15 ton (Bilge & sanitary) Two 50 mm x 100 mm (Bilge)

How driven Electric motors except 150 mm x 100 mm which are driven from main engine.

llast Pumps, No. and size One 100 ton Lubricating Oil Pumps, including Spare Pump, No. and size Two 25 ton.

two independent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

mps, No. and size:—In Machinery Spaces Three 3"

Holds, &c. Fore hold two 3 1/2" After hold two 3 1/2" One 2" chain locker connected to hand pump.

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 5" One 3"

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

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

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

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

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

at pipes pass through the bunkers How are they protected

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

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

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

partment to another Yes. Is the Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from Upper Deck.

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

ain Air Compressors, No. One No. of stages 3 Diameters 500 mm 445 mm 102 mm Stroke 340 mm Driven by Main Engine

uxiliary Air Compressors, No. One No. of stages 2 Diameters See Copenhagen Reports Nos 7676 & 7675 Driven by Aux. Engine

all Auxiliary Air Compressors, No. One No. of stages 2 Diameters 2 1/2" 1 5/16" Stroke 5" Driven by Land.

avenging Air Pumps, No. Diameter Stroke Driven by

uxiliary Engines crank shafts, diameter as per Rule See Copenhagen Reports Nos 7676 & 7675 on engines Nos 1461 & 1464.

R 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 Steam. conn. adjoining.

Is there a drain arrangement fitted at the lowest part of each receiver Yes. (2) 250 litres. See London letter dated 8-2-28.

High Pressure Air Receivers, No. 5 Cubic capacity of each (1) 125 " Internal diameter 1384 mm. thickness 13 mm (2) 25 " See Copenhagen Reports Nos 7676 & 7675.

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

Starting Air Receivers, No. 1. Total cubic capacity 6 cu. m. Internal diameter 4'-7" thickness Shell 7/8" Ends 1 3/8"

Seamless, lap welded or riveted longitudinal joint Riveted Material O.H. steel. Range of tensile strength 28-32.26-30. Working pressure by Rules 410 lbs sq.

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)

6-9-27.

Receivers

1/10/27

Separate Tanks

Donkey Boilers

19-9-27

General Pumping Arrangements

4-11-27

Oil Fuel Burning Arrangements

SPARE GEAR

To Rule requirements and a few additions. (see separate list attached.)

The foregoing is a correct description,

A. N. Kai.

Manufacturer.

Dates of Survey while building
During progress of work in shops-- 1927. SEPT. 26. OCT. 4, 14, 19, 26. NOV. 8, 14, 18, 29. DEC. 2, 5, 14, 20. 1928. JAN. 12, 23, 30. FEB. 6, 9, 10, 13. MAR. 1, 9, 15, 19, 26, 28.
During erection on board vessel-- 1928. MAY. 1, 4, 8, 16, 24, 30, 31. JUNE 4, 6, 8, 9.
Total No. of visits 42.

Dates of Examination of principal parts—Cylinders 4-5-28 Covers 4-5-28 Pistons 4-5-28 Rods Connecting rods 4-5-28.
Crank shaft 4-5-28 Flywheel shaft See Crank shaft Thrust shaft 4-5-28 Intermediate shafts 25-4-28 Tube shaft
Screw shaft 6-2-28 Propeller 6-2-28 Stern tube 14-12-27 Engine seatings 1-5-28 Engines holding down bolts 16-5-28
Completion of fitting sea connections 6-2-28 Completion of pumping arrangements 31-5-28 Engines tried under working conditions 25-4-28, 31-5-28.
Crank shaft, Material S.M.I. Stl. Identification Mark NO 1242 P.W. Y.R. Flywheel shaft, Material See Crank shaft Identification Mark
Thrust shaft, Material S.M.I. Stl. Identification Mark NO 1258 A.W.R. Intermediate shafts, Material S.M.I. Stl. Identification Marks NO 1223 Y.R.
Tube shaft, Material Identification Mark Screw shaft, Material S.M.I. Stl. Identification Mark NO 1226 Y.R.
Is the flash point of the oil to be used over 150° F. 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. With the exception of the two 250 litre H.P. air receivers (see L.O.N. letter dated 8-2-28) the machinery referred to herein has been constructed under special survey, in accordance with the Rule requirements & approved plans. The materials used & the workmanship are all good & both test bed & sea trials proved satisfactory.

In my opinion, the vessel is entitled to the record of Oil Engr. & L.M.C. 6-28 in the Register Book, subject to the two spare H.P. air bottles being renewed at the first convenient opportunity.

+ L.M.C. 6-28 CL

OIL ENGINES 450 SA. 224 NHP

6cy 19 1/16 - 35 7/16 DB 80 lbs

MITSUBI BUSSAN KAISHA, YAMAHA

The amount of Entry Fee ... £ 42 : -
Special ... £ 879 : -
Donkey Boiler Fee ... £ 66 : -
Travelling Expenses (if any) £ 44 : -
Included in Hull expenses
Committee's Minute
Assigned
Oil Engines
CERTIFICATE WRITTEN

Engineer Surveyor to Lloyd's Register of Shipping.



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