

pt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 5653

Received at London Office

MAY 1927

Date of writing Report 6-5-1927 When handed in at Local Office

Port of Kobe.

No. in Survey held at Yama.

Date, First Survey 21st Dec 1926 Last Survey 28th March 1927.

g. Book.

Number of Visits 22.

on the ~~Double~~ ^{Single} ~~Triple~~ ^{Quadruple} Screw vessel "KOYASAN MARU"

Tons Gross 1998.
Net 1133.

uilt at Yama. By whom built Mitsui Bussan Kaisha Yard No. 131. When built 1927-3
Engines made at Copenhagen By whom made Burmeister & Wain. Engine No. 1271 When made 1926
Monkey Boilers made at Yama By whom made Mitsui Bussan Kaisha. Boiler No. 131 When made 1927
ake Horse Power 950 Owners Mitsui Bussan Kaisha. Port belonging to Kobe.
om. Horse Power as per Rule 224. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.
rade for which vessel is intended JAPAN - CHINA.

L ENGINES, &c.—Type of Engines DIESEL ENGINE TRUNK PISTON TYPE. 2 or 4 stroke cycle 4 Single or double acting SINGLE.

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks
an of bearings, adjacent to the Crank, measured from inner edge to inner edge Is there a bearing between each crank

Revolutions per minute Flywheel dia. Weight Report No. 7325 Kind of fuel used

ank Shaft, dia. of journals as per Rule as fitted See Copenhagen Report No. 7325 Crank Webs Mid. length breadth Mid. length thickness Thickness parallel to axis Thickness around eye-hole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 8.22" 8.25" Thrust Shaft, diameter at collars as per Rule as fitted

be Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 9.14" 9.25" Is the shaft fitted with a continuous liner YES.

onze Liners, thickness in way of bushes as per Rule as fitted 19.32" E. 4 1/2 A. 5 1/8 Thickness between bushes as per rule as fitted 7/8" Is the after end of the liner made watertight in the

PELLER boss YES. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One Length.

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.

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

of the tube shaft No. Length of Bearing in Stern Bush next to and supporting propeller 4'-6"

opeller, dia. 9'-6" Pitch 7'-8 1/2" No. of blades Four Material Bronze whether Moveable No. Total Developed Surface 28 sq. feet

ethod of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when detached YES. Means of lubrication

eed fed Thickness of cylinder liners 36 n/p. 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 Centrifugal 50-TONS. 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. Two Diameter 150 n/p. Stroke 80 n/p. 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) Two 10 ton (Bilge & sanitary) Two 150 n/p DIA 80 n/p stroke (bilge) How driven Electric motors except the 150 n/p x 80 n/p which are driven by main engine.

last 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 Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

mps, No. and size:—In Machinery Spaces Three 3" one 5", two 3" copperdam Suctions. One 3" aft well. One 3" to Down Ton P.

Holds, &c. Fore hold. two 3 1/2" aft hold two 3 1/2". Two 3" wing copperdam Suctions, Two 2" to Chain locker & F.P. tank tops

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 BOTH.

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 Top Eng. Room

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

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

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

44-0 All Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

36-0 Evacuating Air Pumps, No. Diameter Stroke Driven by

uxiliary Engines crank shafts, diameter as per Rule as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces Steam connection joining

there a drain arrangement fitted at the lowest part of See Copenhagen Report No. 7325

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

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

rting Air Receivers, No. One Total cubic capacity 6 cu. m. Internal diameter 4'-7" thickness Shell 3/8" Ends 1 1/2"

less, lap welded or riveted longitudinal joint Riveted Material O.H.S. Range of tensile strength 28-32 tons. Working pressure by Rules 410 lb.

IS A DONKEY BOILER FITTED? YES If so, is a report now forwarded? YES
PLANS. Are approved plans forwarded herewith for Shafting No 5-8-26. Receivers No 4-2-27. Separate Tanks No 4-8-26.
Donkey Boilers No 6-8-26. General Pumping Arrangements No 2-8-26. Oil Fuel Burning Arrangements No 12-7-26.

SPARE GEAR To rule requirements & a few additional items. (See separate list attached)
Copies of forging certificates attached.
(1) Intermediate shafting
(2) Screw shaft.

The foregoing is a correct description,

Porter Manufacturer.

Dates of Survey while building
During progress of work in shops - See Copenhagen Report No 7328. & 1927. JAN. 22 FEB. 14. 21. MAR. 14.
During erection on board vessel - 1926. DEC. 21. 1927. JAN. 8. 25. 28. FEB. 5. 9. 16. 21. 26. MAR. 2. 4. 14. 15. 18. 22. 26. 29. 28.
Total No. of visits 22.
Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts 24-1-27. Tube shaft ✓
Screw shaft 25-1-27 Propeller 25-1-27 Stern tube 20-1-27. Engine seatings 21-12-26 Engines holding down bolts 14-2-27.
Completion of fitting sea connections 14-3-27 Completion of pumping arrangements 14-3-27 Engines tried under working conditions 18-3-27
Crank shaft, Material ✓ Identification Mark ✓ Flywheel shaft, Material ✓ Identification Mark NEJ 511. 512. 513.
Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material S.M. 514. Identification Marks ALLOY. 2. 3. 4.
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material S.M. 515. Identification Mark NO 947. 28-10.

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.)
The machinery referred to herein has been securely installed aboard the vessel in accordance with the Rule requirements. The workmanship & materials are good & the machinery has been tested under working conditions & found satisfactory.
In my opinion this vessel is eligible for the record of L.M.C. 3-27, T.S. (CL) 3-27. Oil Eng.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 3. 27. CL.
Oil Engines. 4 SC. SA. 224 NHP.
6 Cy. 19 1/16" - 35 7/16" DB. 80th.

J.W.D.
5/5/27.
H. Kimber.
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... YEN. 40.00
Special Bar ... 280.00
AIR RECEIVER ... 48.00
Donkey Boiler Fee ... 48.00
Travelling Expenses (if any) See Hull Rpt.
When applied for, 1927
When received, 1927
FRI 6 MAY 1927

Committee's Minute
Assigned Thine 3. 27 CL
Oil Eng. DB 8016