

REPORT ON OIL ENGINE MACHINERY

No. 8297.

15 SEP '33

Received at London Office

of writing Report **4-8-33** 19 When handed in at Local Office **16-8-33** 19 Port of **Kobe**
 in Survey held at **Tama** Date, First Survey **24-8-32** Last Survey **1-8-33** 19
 Book. Number of Visits **36**

on the **Triple** Screw vessel "AZKMASAN MARK" Tons { Gross **7614**
 { Net

By whom built **Jimmu Guitani Bureau Kaisha Ltd** No. **195** When built **1933**
 By whom made **Jimmu Guitani Bureau Kaisha Ltd** Engine No. **195** When made **1933**
 By whom made **Jimmu Guitani Bureau Kaisha Ltd** Boiler No. **195** When made **1933**
 Owners **Jimmu Guitani Bureau Kaisha Ltd** Port belonging to **Kobe**
 Horse Power **7000**
 Horse Power as per Rule **1230** Is Refrigerating Machinery fitted for cargo purposes **yes** Is Electric Light fitted **yes**

Service for which vessel is intended **Ocean Going B+W type 24 1/16 55g**

ENGINES, &c.—Type of Engines **Vulcan Direct longhead type 2 stroke cycle 2 Single or double acting Double**
 Maximum pressure in cylinders **45 kg/cm²** Diameter of cylinders **620 mm** Length of stroke **1400 mm** No. of cylinders **6** No. of cranks **6**
 Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge **945 mm** Is there a bearing between each crank **yes**
 Revolutions per minute **110** Turning Gear **1975 mm** Weight **2200 kgs** Means of ignition **Airless Compression** Kind of fuel used **Diesel Oil**
 Crank Shaft, dia. of journals as per Rule **467** Crank pin dia. **485 mm** Crank Webs **860 mm** Mid. length breadth **305 mm** Thickness parallel to axis **305 mm**
 as fitted **485 mm** Crank pin dia. **485 mm** Crank Webs **860 mm** Mid. length thickness **305 mm** Thickness around eye hole **232 mm**
 Wheel Shaft, diameter as per Rule **18.25** Intermediate Shafts, diameter as per Rule **17 3/4** Thrust Shaft, diameter at collars as per Rule **18.85**
 as fitted **18.85** Intermediate Shafts, diameter as fitted **17 3/4** Thrust Shaft, diameter at collars as fitted **18.85**
 Screw Shaft, diameter as per Rule **19 1/4** Is the tube shaft fitted with a continuous liner **yes**
 as fitted **19 1/4** Is the screw shaft fitted with a continuous liner **yes**

Size Liners, thickness in way of bushes as per Rule **0.878** Thickness between bushes as per rule **7/8** Is the after end of the liner made watertight in the
 as fitted **7/8** Thickness between bushes as fitted **7/8** 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 **no**
 Is 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 **no**
 Are liners are fitted, is the shaft lapped or protected between the liners **no** Is an approved Oil Gland or other appliance fitted at the after end of the tube **yes**
 If so, state type **no** Length of Bearing in Stern Bush next to and supporting propeller **6-5"**

Propeller, dia. **18'-0"** Pitch **15'-8"** No. of blades **4** Material **Manila** whether Moveable **yes** Total Developed Surface **110** sq. feet
 Method of reversing Engines **Direct** Is a governor or other arrangement fitted to prevent racing of the engine when decoupled **yes** Means of lubrication
 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
 conducting material **lagged** If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being siphoned back to the engine **no**

Working Water Pumps, No. **2-40 H.P. 300 ton 9 Delorinj life** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **yes**
 Pumps worked from the Main Engines, No. **2** Diameter **160 mm** Stroke **238 mm** Can one be overhauled while the other is at work **yes**
 Pumps connected to the Main Bilge Line { No. and Size **2-165 + 230 mm Bilge Sanitary Ballast 250 + 300 mm Three three**
 How driven **Motor**

Fast Pumps, No. and size **One 250 + 300 mm 150 Tons** Lubricating Oil Pumps, including Spare Pump, No. and size **2-60 H.P. 250 Tons 10 Delorinj**
 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 **203; 204; 108** **Manila**

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **108**
 Will 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**
 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 **Both**
 Are they each fitted with a Discharge Valve always accessible on the platform of the vessel **yes** Are the Blow Off Cocks fitted with a spigot and brass covering plate **yes**

How are they protected **no**
 Have they been tested as per Rule **no**
 All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **yes**

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 **Top platform**
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork **no**

Air Compressors, No. **1** No. of stages **2** Diameters **HP 350 mm LP 400 mm** Stroke **300** Driven by **Motor**
 Auxiliary Air Compressors, No. **2** No. of stages **2** Diameters **HP 13 1/2 LP 3 1/2** Stroke **3 1/2** Driven by **Motor**
 Engineering Air Pumps, No. **Two Ratchet Rotary Blowers** Diameter **699.2 mm** Length **1097.6 mm** Driven by **Main Engines**

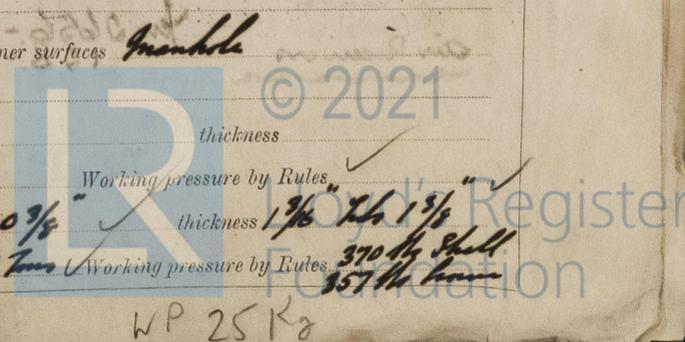
Auxiliary Engines crank shafts, diameter as per Rule **136.2** as fitted **150 mm** Solid injection
 RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **yes**
 Are the internal surfaces of the receivers be examined **yes** What means are provided for cleaning their inner surfaces **Manhole**

Are there a drain arrangement fitted at the lowest part of each receiver **yes**
 High Pressure Air Receivers, No. **Solid Iron** Cubic capacity of each **60 cubic feet** Internal diameter **7'-0 3/8"** thickness **1 3/8"**
 Material **Steel** Range of tensile strength **28-32 Tons** Working pressure by Rules **370 lbs Shell 357 lbs Cover**

Low Pressure Air Receivers, No. **2** Total cubic capacity **60 cubic feet** Internal diameter **7'-0 3/8"** thickness **1 3/8"**
 Material **Painted Steel** Range of tensile strength **28-32 Tons** Working pressure by Rules **370 lbs Shell 357 lbs Cover**
 W.P. 25 Kg

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CWR 5/9/33



IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded? *yes*

PLANS. Are approved plans forwarded herewith for Shafting *4-5-32; 31-3-32; 28-3-33* Receivers *17-5-32* Separate Tanks *31-8-32*
(If not, state date of approval)

Donkey Boilers *4-10-32* General Pumping Arrangements *29-7-32* Oil Fuel Burning Arrangements *28-3-32*

SPARE GEAR

As required by Rules. List attached

The foregoing is a correct description,
PER PRO. MITSUI BUSSAN KAISHA, LTD.

MANAGER, SHIPBUILDING DEPT

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1932 Aug. 24, Oct 26, Nov. 4, 9, 14, 15, 21, Dec 13. 1933 Jan 9, 11, 16, 25, 31, Feb. 14, 21, March 1, 13, 22, 31, April 10, 17, 26, 28, May 8, 9, 17, 19, 20
During erection on board vessel -- June 19, July 7, 10, 11, 14, 26, Aug 1
Total No. of visits 36

Dates of Examination of principal parts—Cylinders *28-4-33* Covers *17-4-33* Pistons *9-5-33* Rods *31-3-33* Connecting rods *14-3-33*

Crank shaft *20-5-33* Flywheel shaft Thrust shaft *21-1-33* Intermediate shafts *14-2-33, 31-3-33* Tube shaft --

Screw shaft *19-4-33, 19-5-33* Propeller *9-5-33, 20-5-33* Stern tube *8-5-33, 17-5-33* Engine seatings *11-1-33* Engines holding down bolts *7-7-33*

Completion of fitting sea connections *20-5-33* Completion of pumping arrangements *26-7-33* Engines tried under working conditions *26-7-33*

Crank shaft, Material *Steel* Identification Mark *N° 3519 A.B.* Flywheel shaft, Material -- Identification Mark *LLOYDS N° 824, 821, 818, 815*

Thrust shaft, Material *Steel* Identification Mark *N° 819* Intermediate shafts, Material *Steel* Identification Marks *822, 14-2-33-31-1-M.K.*

Tube shaft, Material -- Identification Mark *21-1-33 M.K.* Screw shaft, Material *Steel* Identification Mark *LLOYDS N° 3450 19-4-33 H.A.G.*

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

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, etc.)

This machinery has been constructed under special survey in accordance with the Rules and approved plans. The materials & workmanship are good. On completion the machinery was efficiently installed in the vessel and tested under full working conditions and is shippable, in my opinion, for classification with the use of +L.M.C 8.33 Oil Engines; T.S.S.33 P.L. and D.B 120 lbs.

The advice notes and several forging certificates are being retained until the Sister Vessel is completed

The amount of Entry Fee ... *Yes 97.-* : When applied for, *2nd Aug. 1933*
* add for See Kite in Special ... *Yes 0656.-* :
Air Receivers ... *£ 108.-* :
Donkey Boiler Fee ... *£ 26* :
Travelling Expenses (if any) £ : : *26-10-1933*

O.D. Morrison
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE. 12 SEP 1933*

FRI. 29 SEP 1933

Assigned

+ L.M.C 8.33

D.B. 120 lb.



Lloyd's Register Foundation