

REPORT ON OIL ENGINE MACHINERY.

No 6368

Received at London Office JAN 1929

Date of writing Report 22-12-1928 When handed in at Local Office

Port of Kobe

Survey held at

Tama

Date, First Survey 12th June 1928 Last Survey 6th Dec. 1928

Number of Visits 23

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel

"HAKUBASAN MARU"

Tons } Gross 6651
Net 4071

built at

Tama

By whom built Mitsui Bussan Kaisha

Yard No. 150 When built 1928

engines made at

Copenhagen

By whom made Burmeister & Wain

Engine No. 1440 When made 1928

key Boilers made at

Tama

By whom made Mitsui Bussan Kaisha

Boiler No. 150 When made 1928

Net Horse Power

4200

Owners

Mitsui Bussan Kaisha

Port belonging to Tokio

Net Horse Power as per Rule

951

Is Refrigerating Machinery fitted for cargo purposes

YES

Is Electric Light fitted

YES

Service for which vessel is intended

America - Japan

ENGINES, &c.—Type of Engines

2 or 4 stroke cycle Single or double acting

Mean pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Distance 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 Means of ignition Kind of fuel used

Shaft, dia. of journals as per Rule as fitted Crank pin dia. See Copenhagen Report No. 7819 Mid. length breadth Crank Webs Thickness parallel to axis

Propeller 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

Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the shaft fitted with a continuous liner

Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per rule as fitted Is the after end of the liner made watertight in the stern boss

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

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

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 shaft

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

Kind of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when disengaged

FEED. Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with insulating material

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

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 How driven

Oil Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

Independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps

No. and size:—In Machinery Spaces

Holds, &c. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Are the Bilge Suctions in the Machinery Spaces

Are they fitted with Valves or Cocks

Are they fitted sufficiently high on the ship's side to be seen without lifting the platform plates

Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

Have they been tested as per Rule

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

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

Is the Shaft Tunnel watertight Is it fitted with a watertight door

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

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

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

Engining Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shaft diameter as per Rule as fitted

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

Are the internal surfaces of the receivers be examined

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

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

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

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

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



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)

APRIL 17th 1928 ✓

Receivers

FEB 7th 1928 ✓

Separate Tanks ✓

Donkey Boilers

4-2-28 ✓

General Pumping Arrangements

FEB 3rd 1928 ✓

Oil Fuel Burning Arrangements ✓

SPARE GEAR

As per list attached to Copenhagen Report No 7819
Also one set of intermediate shaft coupling bolts ✓

The foregoing is a correct description,

J. Utas

Manufacturer.

Dates of Survey while building
 During progress of work in shops - - See Copenhagen Report No 7819, & 1928. JUNE 12, 19, AUG 13, 22, 28. SEPT 4, 10, 18, 24.
 During erection on board vessel - - OCT 11, 15, 18, 23, 26, 31. NOV 2, 5, 13, 27. DEC 7, 5, 6.
 Total No. of visits 23.

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
 Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓
 JULY 17, 25, AUG 6. Propeller SEPT 18. Stern tube Aug 28th Engine seatings Oct 15th Engines holding down bolts Oct 15th
 Completion of fitting sea connections SEPT 24th Completion of pumping arrangements Dec 1st Engines tried under working conditions Dec 1st
 Crank shaft, Material Identification Mark ✓ Flywheel shaft, Material Identification Mark ✓
 Thrust shaft, Material Identification Mark ✓ Intermediate shafts, Material S.M. Steel Identification Marks 440725, 14770
 Tube shaft, Material Identification Mark ✓ Screw shaft, Material S.M. Steel Identification Mark 440726, 1483

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 Lercin. Has been installed under special survey, according to Rule requirements & the approved plans. The materials & workmanship employed are good & in our opinion the vessel under discussion should be granted the record of + h.m.c. 12-28 (oil engines).

Copies of Lumen shafting, screw shaft certificates attached.

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

PART
 The amount of Entry Fee ... £ 13 - : When applied for, 14th Dec 1928
 Special PART.FEE ... £ 390 - :
 Donkey Boiler Fee ... £ 67 - : When received, 23/4/29
 Travelling Expenses (if any) £ See Hill Rpt.

H. Kimbel & N. V. Gamett
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

TUE. 15 JAN 1929
 + h.m.c. 12-28 Oil Engines
 CR.
 5B 100lb.

CERTIFICATE WRITTEN



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