

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 7408

Received at London Office

1861 JAN 01

Date of writing Report 13-7-31 19

When handed in at Local Office 16-7-31 19

Port of Kobe

No. in Survey held at Kobe

Date, First Survey 2-9-30

Last Survey 9-7-31 19

Reg. Book.

Number of Visits 79

Single
on the Turn
Triple
Quadruple

Screw vessel

Steel Steam Motor Ship "KIRISHIMA MARU"

Tons
Gross
Net

Built at Kobe

By whom built Kawasaki Dockyard Co.

Yard No. 563 When built 1930/31

Engines made at Augsburg

By whom made M.A.N.

Engine No. 330570 When made 1930/31

Donkey Boilers made at Lincoln

By whom made Babcock & Wilcox Ltd.

Boiler No. 14619 When made 1930

Brake Horse Power 6000

Owners Hokuriku Kisen Kaisha

Port belonging to Yokohama

Nom. Horse Power as per Rule 1857

Is Refrigerating Machinery fitted for cargo purposes -

Is Electric Light fitted yes

Trade for which vessel is intended Ocean-going

OIL ENGINES, &c.—Type of Engines Vertical Inverted Oil Engine Injection 2 or 4 stroke cycle 2 Single or double acting Double

Maximum pressure in cylinders 45 atm. Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge (See Bureau Rpt. N° 1324) Is there a bearing between each crank

Revolutions per minute 95 Flywheel dia. Weight Means of ignition Kind of fuel used

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

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 409 mm Thrust Shaft, diameter at collars as per Rule as fitted 416 mm

Tube Shaft, diameter as per Rule as fitted 447.8 mm Screw Shaft, diameter as per Rule as fitted 458 mm Is the screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule as fitted 20.1 mm Thickness between bushes as per rule as fitted 23 mm Is the after end of the liner made watertight in the propeller 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

If 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

If 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

Shaft If so, state type Length of Bearing in Stern Bush next to and supporting propeller 6'-4 3/8"

Propeller, dia. 18'-0" Pitch 19'-1 1/4" No. of blades 4 Material Bronze whether Moveable yes Total Developed Surface 8.63 sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

Lined Thickness of cylinder liners Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. 1 Sea, 1 F.W. 1 Stand By Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Bilge Pumps worked from the Main Engines, No. 1 Diameter 4" Stroke 10" Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size 1 Bilge, 1 Sanitary, each 30 m³/hr. 1 Bilge Ballast 150 m³/hr. 1 General Service 80 m³/hr. How driven Indirect Driven

Ballast Pumps, No. and size One 150 m³/hr. Lubricating Oil Pumps, including Spare Pump, No. and size 2-55 m³/hr. + 1-6 m³/hr.

Are 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 3-3 1/2", 2-6", 2-2" Tunnel well 1-2 1/2"

In Holds, &c. N° 1 Hold 2-3 1/2" N° 2 H. 2-3 1/2" N° 3 H. 2-3 1/2" N° 4 H. 2-3 1/2" N° 5 H. 2-3 1/2" N° 6 H. 2-3 1/2" N° 7 H. 2-3 1/2" N° 8 H. 2-3 1/2" N° 9 H. 2-3 1/2" N° 10 H. 2-3 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2-6", 1-3 1/2"

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

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

Are 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 plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

What pipes pass through the bunkers none How are they protected -

What pipes pass through the deep tanks none Have they been tested as per Rule 7

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

Is 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 compartment to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Top Platform

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

Main Air Compressors, No. 1 No. of stages 3 Diameters 350/295/100 mm Stroke 220 mm Driven by Ana. Engines

Auxiliary Air Compressors, No. 2 + 325 m³/hr. No. of stages 3 Diameters 350/295/100 mm Stroke 220 mm Driven by Ana. Engines

Small Auxiliary Air Compressors, No. 1 Blowers Diameter 4" Stroke 10" Driven by Ana. Engines

Scavenging Air Pumps, No. 1 Blowers Diameter 4" Stroke 10" Driven by Ana. Engines

Auxiliary Engines crank shafts, diameter as per Rule as fitted 170 mm

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes (See Bureau Rpt. N° 1324)

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

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

High Pressure Air Receivers, No. 1 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

007474-007485-0112

IS A DONKEY BOILER FITTED? *yes*

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

PLANS. Are approved plans forwarded herewith for Shafting *4/6/30*
(If not, state date of approval)

Receivers

Separate Tanks *30-26/7/30 9-10-30*

Donkey Boilers

General Pumping Arrangements *21-1-31*

Oil Fuel Burning Arrangements *21-1-31*

SPARE GEAR

As required by the Rules

One spare main shaft with lower

two spare propeller blades

The foregoing is a correct description,

S. Minino

for the Manufacturer.

Kawasaki Dockyard Co. Yokohama

Dates of Survey while building
During progress of work in shops - *1930 Sept. 2-9. Oct. 7. 23-30 Nov. 15 Dec. 26 1931 Jan. 16-20. 22. 27-29 Feb. 5-6. 21-23*
During erection on board vessel - *March 5-9. 10-13. 14-19. 20-23. 26-27. 30 April 1-2. 4-6. 7-9. 13-14. 15-17. 18-20. 21-22. 23-24. 27-28*
Total No. of visits *79*

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts *10-3-31. 27-3-31* Tube shaft
27-3-31 Propeller *16-3-31* Stern tube *25-3-31* Engine seatings *25-3-31* Engines holding down bolts *22-5-31*
Completion of fitting sea connections *25-3-31* Completion of pumping arrangements *4-7-31* Engines tried under working conditions *29-6-31*

Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark
Thrust shaft, Material Identification Mark Intermediate shafts, Material *Steel* Identification Marks *See Below*
Tube shaft, Material Identification Mark Screw shaft, Material *Steel* Identification Mark *Below*

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 *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.)

Tunnel Shafting

13854 13852 0810 0821 0883 0881 13849 0864 13849

14045 14045 14045 14045 14045 14045 14045 14045 14045

N° 2850 N° 2852 N° 2795 N° 2796 N° 2849 N° 2818 N° 2819 N° 2831 26-5-31

10-2-31 K.K. 10-3-31 K.K. 10-3-31 K.K. 27-3-31 K.K. 10-3-31 K.K. 25-4-31 A.O.M. 27-3-31 K.K. 27-3-30

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This machinery has been installed under special survey in accordance with the Rules and approved plans. The materials and workmanship are good. The main and auxiliary machinery was tried under full working conditions and found to be efficient and eligible in my opinion to have record of +L.M.C 7.31, oil engines T.S. 7.31 P.L. and D.B. 100 lbs.

The amount of Entry Fee ... *#12*

1/5 Special ... *#439*

Donkey Boiler Fee ... £

Travelling Expenses (if any) £ *See Hull Rpt.*

When applied for,

July 8th 1931

When received,

22/9/31

Committee's Minute

CERTIFICATE WRITTEN

Assigned

+ L.M.C. 7.31 C.L.

Del Eng D.B. 100 lbs.

Engineer Surveyor to Lloyd's Register of Shipping.

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