

REPORT ON OIL ENGINE MACHINERY.

No. 6115.

AUG 3 1937

Date of writing Report 19th July 1937 When handed in at Local Office

19-7-1937 Port of YOKOHAMA

Received at London Office

No. in Survey held at YOKOHAMA

Date, First Survey 3rd June 1936 Last Survey 5th July 1937

Reg. Book. on the Single Screw M.V. "No 3"

Number of Visits 40

Tons { Gross 1079
Net

Built at Yokohama By whom built Mitsubishi Jukogyo K.K. Yokohama Sh. Yard No. 269 When built 1937

Engines made at Yokohama By whom made Mitsubishi Jukogyo K.K. Yokohama Sh. Engine No. 269 When made 1937

Donkey Boilers made at Yokohama By whom made Mitsubishi Jukogyo K.K. Yokohama Sh. Boiler No. 269 When made 1937

Brake Horse Power 600 Owners Union of Soviet Socialist Republic Port belonging to Vladivostok

Nom. Horse Power as per Rule 141 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted yes

Trade for which vessel is intended Carrying Petroleum in bulk. 1936-1940

OIL ENGINES, &c.—Type of Engines Mitsubishi MAN 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 365 mm Length of stroke 500 mm No. of cylinders 7 No. of cranks 7

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 463 mm Is there a bearing between each crank yes

Revolutions per minute 260 Flywheel dia. 1400 mm Weight 2000 kgs. Means of ignition Solid Kind of fuel used Crude oil

Crank Shaft, dia. of journals as per Rule 215 mm Crank pin dia. 220 mm Crank Webs Mid. length breadth 360 mm Thickness parallel to axis shrunk

Flywheel Shaft, diameter as per Rule 155 mm Intermediate Shafts, diameter as per Rule 141 mm Thrust Shaft, diameter at collars as per Rule 149 mm

Tube Shaft, diameter as fitted 155 mm Screw Shaft, diameter as per Rule 155 mm Is the tube shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 12.2 mm Thickness between bushes as per rule 9.075 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 yes

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 no Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft no If so, state type chrome nickel Length of Bearing in Stern Bush next to and supporting propeller 855 mm

Propeller, dia. 2050 mm Pitch 1512.3 mm No. of blades 4 Material steel whether Moveable Solid Total Developed Surface 1.22 sq. m

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

Faced Thickness of cylinder liners 27 mm 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 yes

Cooling Water Pumps, No. 1-19.541-50 M³/hr. 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. One Diameter 95 mm Stroke 210 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line { No. and Size 1-19.5, 1-50 & 1-14 M³/hour. How driven M. Eng. Steam Steam

Ballast Pumps, No. and size 1-14 M³/hr. Lubricating Oil Pumps, including Spare Pump, No. and size 1-45 & 1-5 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 2-60 mm, 1-65 mm, 2-50 mm & 1-120 mm In Pump Room 1-75 mm

In Holds, &c. Fore hold 2-65 mm, Cofferdams fore, amidship & aft, 1 each 50 mm.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-120 & 1-65 mm.

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 yes

Are they fixed sufficiently high on the ship's side to be seen without tipping the platform plates yes Are the Overboard Discharges above or below the deep water line above

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 yes How are they protected yes

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

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 yes

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

Main Air Compressors, No. One No. of stages Two Diameters 45 & 145 mm Stroke 150 mm Driven by steam engine

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

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

Scavenging Air Pumps, No. yes Diameter yes Stroke yes Driven by yes

Auxiliary Engines crank shafts, diameter as per Rule yes as fitted yes

AIR 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 and cleaned yes Is a drain fitted at the lowest part of each receiver yes

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

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

Starting Air Receivers, No. 3 Total cubic capacity 20,000 litres Internal diameter 1055 mm thickness 10 mm

Seamless, lap welded or riveted longitudinal joint Riveted Material steel Range of tensile strength 41-47 Working pressure 33.5 & 35.5 kg/cm² Actual 30 kg/cm²

IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? Yes

Is the donkey boiler intended to be used for domestic purposes only No

PLANS. Are approved plans forwarded herewith for Shafting 16/3, 19/8, 24/8/36 Receivers 19/12 & 2/10/36 Separate Tanks 19/12, 30/12, 31/12/36
(If not, state date of approval)

Donkey Boilers 23-6-36 General Pumping Arrangements 7/10/36, 7-1-37 Oil Fuel Burning Arrangements 7-10-36

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes please see list attached

State the principal additional spare gear supplied

The foregoing is a correct description,

M. Hattway

Manufacturer.

Dates of Survey while building
During progress of work in shops - 3/6, 30/6, 13/7, 20/7, 4/8, 21/9, 19/10, 20/10, 30/10, 12/1, 25/1, 27/1, 29/1, 3/2, 6/2, 8/2, 10/2, 13/2, 23/2, 24/2, 25/2, 2/3, 13/3, 19/3, 24/3, 26/3, 5/4, 6/4, 13/4/37.
During erection on board vessel - 19/4, 8/4, 22/4, 15/5, 20/5, 24/5, 28/5, 31/5, 3/6, 5/7/37.
Total No. of visits 40

Dates of Examination of principal parts - Cylinders 30/4/36-8/2/37 Covers 13/7-36-8/3/37 Pistons 17-2-37 Rods ✓ Connecting rods 13-2-37

Crank shaft 27-1-37 Flywheel shaft ✓ Thrust shaft 6-4-37 Intermediate shafts 6-4-37 Tube shaft ✓

Screw shaft 26/3/37 Propeller 26/3/37 Stern tube 3/2, 6/4/37 Engine seatings 8/4/37 Engines holding down bolts 19/4, 22/4, 4/5/37

Completion of fitting sea connections 8-4-37 Completion of pumping arrangements 20-5-37 Engines tried under working conditions 28-5-37

Crank shaft, Material steel Identification Mark LLOYD'S NO. 1455 Flywheel shaft, Material ✓ Identification Mark ✓

Thrust shaft, Material Steel Identification Mark H.D.B. 4-9-36 Intermediate shafts, Material Steel Identification Marks LLOYD'S NO. 6069

Tube shaft, Material ✓ Identification Mark LLOYD'S NO. 5855 Screw shaft, Material Steel Identification Mark LLOYD'S NO. 6098

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 ✓ If so, have the requirements of the Rules been complied with ✓

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with YES.

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under Special Survey in accordance with the Rules & approved plans. Materials & workmanship good. The machinery has been securely fitted onboard and on completion was tried under full working conditions with satisfactory results. The machinery of this vessel is eligible in our opinions to be classed ✓ LMC 6-37.

The amount of Entry Fee .. £ 3 -- 0-0 : When applied for, 16-7-1937
Special ... £ 44 -- 1-0 :
AIR RECEIVERS ... £ 7 -- 18-6 :
Donkey Boiler Fee ... £ 7 -- 18-0 :
LONDON CABLES. YEN. 52.33 :
Travelling Expenses (if any) YEN. 13.00 :
When received, 20.11.1937

J. M. Nicholas & R. Ridgeway
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned + dmb. 7.37 ok. by J.B. - 12/1/37

