

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 12<sup>th</sup> Aug. 1924 When handed in at Local Office 19 Port of Kobe  
 No. in Survey held at Osaka Date, First Survey 15<sup>th</sup> Dec. 1923 Last Survey 24<sup>th</sup> July 1924  
 Reg. Book. on the S.S. "KOJUN MARU" (Number of Visits 39)  
 Built at Osaka By whom built Osaka Iron Works Yard No. 1058 When built 1924  
 Engines made at Osaka By whom made Osaka Iron Works Engine No. 1058 when made 1924  
 Boilers made at Osaka By whom made Osaka Iron Works Boiler No. 1058 when made 1924  
 Registered Horse Power - Owners Hiromi Shoji K.K. Port belonging to Kobe  
 Nom. Horse Power as per Rule 211 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines Triple Expansion  
 Dia. of Cylinders 18, 30, 50 Length of Stroke 36 Revs. per minute 87 No. of Cylinders 3 No. of Cranks 3  
 Dia. of Crank shaft journals as per rule 10.12 as fitted 10.7 Dia. of Crank pin 10.7 Crank webs Mid. length breadth 19 If shrunk Thickness parallel to axis 6.5  
 Diameter of Thrust shaft under collars as per rule 10.12 as fitted 10.5 Diameter of Tunnel shaft as per rule 9.64 as fitted 9.7 Diameter of Screw shaft as per rule 10.92 as fitted 11.4 Is the Screw shaft fitted with a continuous liner the whole length of the stern tube Yes 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 joints burned 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 Yes Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated No

Pitch of Propeller 14'-6" No. of Blades 4 State whether Moveable No Total Surface 60 square feet.  
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3.4 Stroke 20 Can one be overhauled while the other is at work Yes  
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 3.4 Stroke 20 Can one be overhauled while the other is at work Yes  
 Total number and size of power driven Feed and Bilge Auxiliary Pumps One 8x5.5  
 No. and size of Pumps connected to the Main Bilge Line One 6x7.5 One 8x5.5  
 No. and size of Ballast Pumps One 6x6 No. and size of Lubricating Oil Pumps, including Spare Pump Yes

Are two independent means arranged for circulating water through the Oil Cooler Yes No. and size of suction connections to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 2 of 3.5" and 2 of 2.75" and in Holds, &c. Two of 3" in fore hold, two 2.75" & two 3" in after hold, One 2.5" in tunnel well

No. and size of Main Water Circulating Pump Bilge Suctions One 6" No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges 2 of 3.5" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges No  
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes 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 are carried through the bunkers Tank air & sounding pipes How are they protected In wooden casings  
 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 Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from E.R. 10th platform

**MAIN BOILERS, &c.**—(Letter for record S) Total Heating Surface of Boilers 3013 sq. ft.  
 Is Forced Draft fitted Yes No. and Description of Boilers 2 S.E. Multitubular Working Pressure 200 lbs.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

**PLANS.** Are approved plans forwarded herewith for Shafting 6-8-23 Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes  
 (If not state date of approval)  
 General Pumping Arrangements E of 7-2-24 Oil Fuel Burning Piping Arrangements Yes

**SPARE GEAR.** State the articles supplied:—  
 4 connecting rod top end bolts & nuts. 2 connecting rod bottom end bolts & nuts.  
 2 main bearing bolts & nuts. One set of coupling bolts.  
 One set of feed & bilge pump valves. One set of piston rings complete.  
 Eccentric bolts & nuts & plates. In addition:— One valve spindle. 2 connecting rod top end braces.  
 One connecting rod bottom end brass. Air pump rod. 2 eccentric rods. Centrifugal pump impeller & shaft.  
 2 springs for boiler safety valves.

The foregoing is a correct description,

*J. Keefe*  
 OSAKA IRON WORKS LTD.  
 AUG 26 1924  
 野五鐵阪大社會式株



004505-009513-0180

1923 Dec. 15, 24. 1924 Jan. 10, 12, 17, 18, 19, 24. Feb. 2, 6, 12, 19, 22, 25, 27, 29.  
 During progress of work in shops -- Mar. 5, 8, 18, 20, 22, 26. Apr. 4, 10, 15, 21. May 2, 15, 19, 31. June 16, 20, 24.  
 Dates of Survey while building During erection on board vessel --- 1924 July 5, 8, 12, 17, 19, 24.  
 Total No. of visits 39

Dates of Examination of principal parts - Cylinders 26-3-24. Slides 15-4-24.  
 Covers 26-3-24. Pistons 22-3-24. Rods 20-3-24.  
 Connecting rods 20-3-24. Crank shaft 28-2-24. Thrust shaft 28-2-24.  
 Tunnel shafts 20-3-24. Screw shaft 16-6-24. Propeller 16-6-24.  
 Stern tube 31-5-24. Engine and boiler seatings 24-6-24. Engines holding down bolts 5-7-24.  
 Completion of pumping arrangements 8-7-24. Boilers fixed 5-7-24. Engines tried under steam 24-7-24.  
 Completion of fitting sea connections 20-6-24. Stern tube 20-6-24. Screw shaft and propeller 24-6-24.  
 Main boiler safety valves adjusted 17-7-24. Thickness of adjusting washers Lock nuts.  
 Material of Crank shaft O.H. Steel Identification Mark on Do. 275 L.Y. 24-7-24.  
 Material of Thrust shaft O.H. Steel Identification Mark on Do. 276 L.Y. 28-2-24.  
 Material of Tunnel shafts O.H. Steel Identification Marks on Do. 286 Y.V. 20-3-24.  
 Material of Screw shafts O.H. Steel Identification Marks on Do. 445 L.Y. 20-3-24.  
 Material of Steam Pipes S.D. Steel Test pressure 600 lbs. Date of Test 12-7-24.  
 Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. ✓  
 Have the requirements of the Rules for carrying and burning oil fuel 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, &c.)

The machinery of this vessel has been constructed and fitted on board in accordance with the requirements of the Rules and the approved plans. The materials & workmanship are good. The machinery has been tried under full working conditions and found satisfactory, and is eligible in our opinion for the record of L.M.C. - 7.24.

It is submitted that this vessel is eligible for THE RECORD, + LMC 7.24. CL. FD.

*[Signature]*  
20/9/24

The amount of Entry Fee ... £ 40.  
 Special ... £ 791.  
 Donkey Boiler Fee ... £ -  
 Travelling Expenses (if any) £ (with Hull)

When applied for, 25 July 24.  
 When received, *[Signature]*  
 L.H.F. Young - Y. Jo.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned + L.M.C. 7.24  
 C.L.



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