

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 6 FEB 1926

Date of writing Report 28.12.1925 When handed in at Local Office 1925 Port of Kobe  
 No. in Survey held at OSAKA Date, First Survey July 9<sup>th</sup> 1924 Last Survey Dec 21<sup>st</sup> 1925  
 Reg. Book. on the Single Screw Steamer "GENBU MARU" (Number of Visits 63)  
 Built at OSAKA By whom built Osaka Iron Works Ltd Yard No. 1071 Tons { Gross 1742  
 Engines made at Osaka By whom made Osaka Iron Works Ltd Engine No. 1071 when built 1925-12  
 Boilers made at do By whom made do do do Boiler No. 1071 when made 1925-12  
 Registered Horse Power \_\_\_\_\_ Owners do do do Port belonging to TAKASAGO  
 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 SURFACE CONDENSING ✓  
 Dia. of Cylinders 18.30.50 ✓ Length of Stroke 36 ✓ Revs. per minute \_\_\_\_\_ No. of Cylinders 3 ✓ No. of Cranks 3 ✓  
 Dia. of Crank shaft journals as per rule 10.00 ✓ Dia. of Crank pin 10.2 ✓ Crank webs Mid. length breadth 19.5 ✓ Thickness parallel to axis 6.5 ✓  
 as fitted 10.4 ✓ Crank webs Mid. length thickness 6.2 ✓ If shrunk Thickness around eye-hole 4.5 ✓  
 Diameter of Thrust shaft under collars as per rule 10 ✓ Diameter of Tunnel shaft as per rule 9.515 ✓ Diameter of Screw shaft as per rule 10.61 ✓ Is the Screw shaft  
 as fitted 10.4 ✓ as fitted 9.34 ✓ as fitted 10.4 ✓  
 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 \_\_\_\_\_ 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 \_\_\_\_\_  
 If two liners are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_ Is an approved appliance fitted at the after end of the shaft to permit  
 of it being efficiently lubricated \_\_\_\_\_ Length of Stern Bush 3-9 ✓ Diameter of Propeller 13-6 ✓  
 Pitch of Propeller 15-0 ✓ No. of Blades 4 ✓ Slate 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 3.2 ✓ 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 G.S. 8x5.2 ✓  
 No. and size of Pumps connected to the Main Bilge Line ONE 6x7.2 & ONE 8x5.2 ✓  
 No. and size of Ballast Pumps ONE 6x7.2 ✓ No. and size of Lubricating Oil Pumps, including Spare Pump \_\_\_\_\_  
 Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ No. and size of suction connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 2 @ 3.2 & 2 @ 2.34 ✓ and in Holds, &c. 2 OFF 3" DIA IN FORE HOLD  
4 OFF 2.34" DIA. IN AFTER HOLD. ONE 3" DIA IN TUNNEL WELL ✓

No. and size of Main Water Circulating Pump Bilge Suctions ONE OFF 6" DIA. ✓ No. and size of Donkey Pump Direct Suctions  
 to the Engine Room Bilges 2 OFF 3.2" DIA. ✓ 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 AS APPROVED ✓  
 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 VENT PIPES TO DOUBLE BOTTOM TANK ONLY ✓ How are they protected WOOD CASINGS & CLIPPED TO FRAME ✓  
 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 TOP GRATING ✓

**MAIN BOILERS, &c.**—(Letter for record 5) Total Heating Surface of Boilers 258 3011.4 ✓  
 Is Forced Draft fitted YES No. and Description of Boilers TWO 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? \_\_\_\_\_

**PLANS.** Are approved plans forwarded herewith for Shafting 29.9.24 Main Boilers 29.9.24 Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_  
 (If not state date of approval)  
 General Pumping Arrangements 26/9/24 & 29/9/24 Oil fuel Burning Piping Arrangements \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:—  
2 Connecting rod top end bolts nuts & brasses 2 Conn. Rod bottom end bolts nuts & brasses.  
2 main bearing bolts nuts. 6 coupling bolts nuts. one set of feed & bilge pump valves  
one complete set of main engine piston rings. one valve spindle. one air pump rod.  
one circ. pump impeller & shaft. 2 safety valve springs for main boiler.  
also a large assortment of bolts nuts, iron of various sizes & hand tools.



The foregoing is a correct description.

*[Signature]*

Manufacturer.



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 Foundation

1924 July 9 Aug 16, 19, 25, 27. Sept 4, 9. Oct 9, 23. Nov 3, 12, 28. Dec 2, 13, 18, 24.  
 During progress of work in shops - - 1925 Jan 14, 15, 17, 20, 30. Feb 13, 27. March 13. April 10, 14. May 12, 20, 23, 25. June 8, 15, 23. July 8, 20, 23.  
 Aug 12. Sept 7, 8, 9, 11, 15, 16, 26. Oct 1, 5, 6, 22.  
 During erection on board vessel - - Oct 27, 30. Nov 4, 5, 6, 21, 24, 26. Dec 2, 9, 15, 17, 19, 21.  
 Total No. of visits 63.

Dates of Examination of principal parts - Cylinders 27-10-25 Slides 27-10-25  
 Covers 27-10-25 Pistons 9-9-25 Rods 9-9-25  
 Connecting rods 8-9-25 Crank shaft 8-9-25 Thrust shaft 11-9-25  
 Tunnel shafts 16-9-25 Screw shaft 11-9-25 Propeller 1-10-25  
 Stern tube 26-9-25 Engine and boiler seatings 26-9-25 Engines holding down bolts 9-12-25  
 Completion of pumping arrangements 15-12-25 Boilers fixed 9-12-25 Engines tried under steam 15-12-25  
 Completion of fitting sea connections 19-10-25 Stern tube 6-10-25 Screw shaft and propeller 6-10-25  
 Main boiler safety valves adjusted 15-12-25 Thickness of adjusting washers LOCK NUTS FITTED.  
 Material of Crank shaft O.H. STEEL. Identification Mark on Do. LLOYD'S N° 590, 23-6-25 H.D.B.  
 Material of Thrust shaft O.H. STEEL. Identification Mark on Do. " " 589 11-9-25 H.D.B.  
 Material of Tunnel shafts O.H. STEEL. Identification Marks on Do. " " 587 15-9-25 H.D.B.  
 Material of Screw shafts O.H. STEEL. Identification Marks on Do. " " 596 29-9-25 H.D.B.  
 Material of Steam Pipes S.P. STEEL ✓ Test pressure 600 LBS ✓ Date of Test 9-12-25  
 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 YES ✓ If so, state name of vessel "KOJUN MARU" RPT N° 4538

General Remarks (State quality of workmanship, opinions as to class, &c.)  
 The machinery & boilers of this vessel have been constructed with special survey in accordance with rule requirements & approved plans. They have now been efficiently installed on board & tested under steam with satisfactory results. This case is eligible in my opinion to have Record of + L.M.C. 12-25 in the Register Book.

Copies of the principal forging certificates are forwarded herewith:  
 Thrust shaft: Cert N° 589.  
 Tunnel " " " 587  
 Crank " " " 590  
 Propeller " " " 596  
 Connecting Rods " " 588  
 Piston " " " 597  
 Valve " " " 598  
 Eccentric " " " 599  
 C.S. Bolting Arms 556

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 12. 25. FD.C.L.

*Handwritten signature and date*  
 9/2/26

The amount of Entry Fee ... £EN : 45.00 : When applied for, 21-12-1925  
 Special INCL. BOILERS & ELECTRICAL LIGHTS ... £ 888.00 :  
 Donkey Boiler Fee ... £ 51.00 : When received, 30/12/25  
 Travelling Expenses (if any) £ SEE HULL RPT.

H.D. Buchanan & Co.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 9 FEB 1926  
 Assigned + L.M.C. 12. 25  
 F.D. C.L.



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