

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 26 OCT 1925

Date of writing Report Sept. 18<sup>th</sup> 1925 When handed in at Local Office 19 Port of Kobe  
 No. in Survey held at Osaka Date, First Survey Jan 10<sup>th</sup> Last Survey 26<sup>th</sup> Aug: 19 25  
 Reg. Book. on the Single Screw "TSUKUSHI MARU" (Number of Visits 57)  
 Built at Osaka By whom built Osaka Iron Works Ltd Yard No. 1074 Tons { Gross 1925-8  
 Engines made at do By whom made Osaka Iron Works Ltd Engine No. 1074 when made 1925-8  
 Boilers made at do By whom made do do Boiler No. 1074 when made 1925-8  
 Registered Horse Power 1500 Owners KANIMA SHOGYO KABUSHIKI KAISHA Port belonging to SHIMONOSEKI  
 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 80 No. of Cylinders 3 No. of Cranks 3  
 Dia. of Crank shaft journals as per rule 10.00 Dia. of Crank pin 10.25 Crank webs Mid. length breadth 19 1/2" Thickness parallel to axis 6 1/2"  
 as fitted 10.25 as fitted 10.25 as fitted 6 1/2" If shrunk Thickness around eye-hole 4 1/2"  
 Diameter of Thrust shaft under collars as per rule 10.00 Diameter of Tunnel shaft as per rule 9.515 Diameter of Screw shaft as per rule 10.56 Is the Screw shaft  
 as fitted 10.4 as fitted 9 3/4" as fitted 11 1/4"  
 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 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 Length of Stern Bush 5' 9" Diameter of Propeller 12' 6"  
 Pitch of Propeller 16' 6" No. of Blades 4 State whether Moveable Not moveable Total Surface 56 sq (Dev) square feet.  
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3 1/4" 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 2 1/2" 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 1. Gen. Service 6x7 1/2" 1. Suck 8x5 1/2"  
 No. and size of Pumps connected to the Main Bilge Line one Gen. Service 6x7 1/2" and one Ballast 6x7 1/2"  
 No. and size of Ballast Pumps one, 6x7 1/2" No. and size of Lubricating Oil Pumps, including Spare Pump none fitted  
 Are two independent means arranged for circulating water through the Oil Cooler Yes No. and size of suction connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 2 @ 2 1/2" dia (1 Port, 1 Star) and in Holds, &c. 2 @ 3 1/4" (1 P, 1 S) in fore hold.  
4 @ 3" dia in after hold (2 P, 2 S) one @ 3" dia in tunnel well.

No. and size of Main Water Circulating Pump Bilge Suctions one at 6" dia. No. and size of Donkey Pump Direct Suctions  
 to the Engine Room Bilges 2 @ 3 1/2" dia (1 P, 1 S.) 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 Yes  
 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 None How are they protected 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 Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from upper deck level

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 3011 sq  
 Is Forced Draft fitted Yes No. and Description of Boilers 2 Single ended Multitubular Working Pressure 200 lbs/sq  
 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 4-11-24 Main Boilers 4-11-24 Auxiliary Boilers Yes Donkey Boilers Yes  
 (If not state date of approval)  
 General Pumping Arrangements 10-12-24 Oil and Burning Piping Arrangements Yes

SPARE GEAR. State the articles supplied:—

2 connecting top end bolts + nuts; 2 conn. rod bottom end bolts + nuts; 2 main bearing  
bolts + nuts; 1 set of coupling bolts + nuts; 1 set of feed + bilge pump valves; 28 cond. tubes  
1 set of piston rings + springs; one H.P. valve spindle; 6 cylinder cover studs + nuts;  
10 pump ring bolts + nuts; one set feed check valves; 1 set top end brasses; 1 set bottom end brasses  
a large quantity of assorted bolts + nuts, hand tools, & iron of various sizes.  
1 air pump rod; 1 impeller + shaft for Centrif. Cir. pump. 1 set Boiler Safety valve spring (2)

The foregoing is a correct description,

*M. F. S.*

Manufacturer.



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Foundation



During progress of work in shops -- *Jan'y: 10, 14, 17, 20, 22, 26, Feb'y: 7, 9, 18, 19, 23, March: 5, 7, 9, 18, 25, 31, April: 2, 8, 10, 11, 14, 16, 24, 27, May 2, 6, 9, 12, 15, 19, 20, 23, 27, 30, June 1, 6, 8, 13, 15, 20, 23, 27, 30, July 1, 7, 8, 14, 17, 22, 23*  
 Dates of Survey while building { During erection on board vessel -- *Aug 1, 4, 13, 20, 21, 24, 26,*  
 Total No. of visits *57*

Dates of Examination of principal parts -- Cylinders *8-7-25* Slides *10-4-25*  
 Covers *8-7-25* Pistons *19-5-25* Rods *30-6-25*  
 Connecting rods *30-6-25* Crank shaft *12-5-25 & 19-5-25* Thrust shaft *23-6-25*  
 Tunnel shafts *30-6-25* Screw shaft *7-14-7-25* Propeller *14-7-25*  
 Stern tube *19-5-25* Engine and boiler seatings *30-6-25* Engines holding down bolts *12-8-25*  
 Completion of pumping arrangements *20-8-25* Boilers fixed *12-8-25* Engines tried under steam *20-8-25*  
 Completion of fitting sea connections *23-7-25* Stern tube *fitted 17-7-25* Screw shaft and propeller *23-7-25*  
 Main boiler safety valves adjusted *20-8-25* Thickness of adjusting washers *Lock nuts fitted*  
 Material of Crank shaft *O.H. Steel* Identification Mark on Do. *LLOYD'S N° 623 H.D.B. 19-5-25*  
 Material of Thrust shaft *do* Identification Mark on Do. *LLOYD'S N° 657 H.D.B. 23-6-25*  
 Material of Tunnel shafts *do* Identification Marks on Do. *LLOYD'S N° 662 A.B.C.D. H.D.B. 30-6-25*  
 Material of Screw shafts *do* Identification Marks on Do. *LLOYD'S N° 661 H.D.B. 14-7-25*  
 Material of Steam Pipes *Solid Drawn Steel* Test pressure *600 lb.* Date of Test *13-8-25*  
 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" Kobe Report N° 4538.*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*The machinery of this vessel has been constructed under special survey in accordance with the Rules & approved plans; Materials have been tested found efficient & the workmanship throughout is good.*  
*It has now been efficiently installed on board and tested under full working condition with satisfactory results. This case is eligible in my opinion to have Record of L.M.C. 8-25. in Register Book.*

*Copies of Forging certificates are forwarded herewith.*

It is submitted that  
 this vessel is eligible for  
 THE RECORD. + LMC 8.25. FD. CL.

*[Signature]*  
 27/10/25

*H.D. Buchanan*

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ *YEN 48<sup>00</sup>* When applied for, *27-8-1925*  
 Special ... £ *11944<sup>00</sup>*  
 Donkey Boiler Fee ... £ *✓* When received, *1-10-25*  
 Travelling Expenses (if any) £ *SEE HULL RPT*

Committee's Minute

Assigned

FRI. 30 OCT 1925

*+ L.M.C. 8.25*

*F.D. C.L.*

CERTIFICATE WRITTEN



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