

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

20 NOV 1928

Date of writing Report 15th October 1928 When handed in at Local Office 19 Port of YOKOHAMA
 No. in Survey held at Uraga Date, First Survey 13th April Last Survey 11th October 1928
 Reg. Book. on the Steel S.S. "CANTON MARU" (Number of Visits 25) Tons { Gross 2811.32 Net 1613.75
 Built at Uraga By whom built Uraga Dock Co. Ltd Yard No. 329 When built 1928
 Engines made at Uraga By whom made Uraga Dock Co. Ltd. Engine No. 329 when made 1928
 Boilers made at Uraga By whom made Uraga Dock Co. Ltd. Boiler No. 329 when made 1928
 Registered Horse Power 2800 Owners Osaka Shosen Kaisha Port belonging to Osaka
 Nom. Horse Power as per Rule 435 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes.

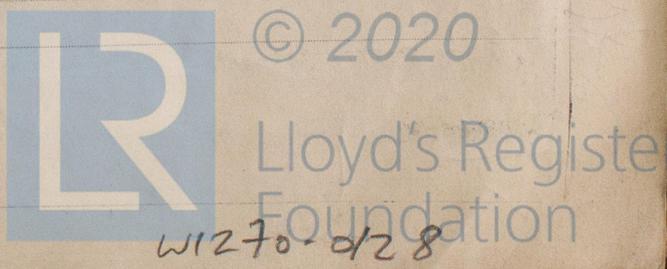
ENGINES, &c.—Description of Engines Triple Expansion
 Dia. of Cylinders 23", 38 1/2", 64" Length of Stroke 39" Revs. per minute 101.6 No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 12.1" as fitted 12 1/2" Dia. of Crank pin 12 3/4" Crank webs Mid. length breadth 4 7/8" If shrunk Thickness parallel to axis 7 7/8"
 Mid. length thickness 5 1/2" Thickness around eye-hole 5 1/2"
 Diameter of Thrust shaft under collars as per rule 12.1" as fitted 12 1/2" Diameter of Tunnel shaft as per rule 11.5" as fitted 11.75" Diameter of Screw shaft as per rule 12.4" as fitted 13.125" 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 Length of Stern Bush 4' 4 1/2" Diameter of Propeller 14' 3"
 Pitch of Propeller 16' 0" No. of Blades 4 State whether Moveable yes. Total Surface 64 square feet.
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 4 1/4" Stroke 19 1/2" Can one be overhauled while the other is at work yes.
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 4 1/4" Stroke 19 1/2" Can one be overhauled while the other is at work yes.
 Total number and size of power driven Feed and Bilge Auxiliary Pumps 2 - 10 1/2" x 8" x 21"
 No. and size of Pumps connected to the Main Bilge Line 2 - 4 1/4" x 19 1/2", 1 - 8" x 9 1/2" x 10", 1 - 8 1/2" x 6" x 9", 1 - 5 1/2" x 6 1/2" x 7 1/2"
 No. and size of Ballast Pumps 1 - 8" x 9 1/2" x 10" 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 1 - 4", 1 - 3 1/2", 4 - 3" and in Holds, &c. 3"
 No. and size of Main Water Circulating Pump Bilge Suctions 1 - 8" No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges 1 - 4" 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 & Cocks yes.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes. Are the Discharge Pipes above ~~below~~ the deep water line yes.
 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 Bilge suction pipes 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 Top platform.

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 6843 Square feet.
 Is Forced Draft fitted yes. No. and Description of Boilers 3, Single Ended, 3 SB Working Pressure 200lb.
 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 Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval)
 General Pumping Arrangements Oil Fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:— One set packing rings for each piston, Piston rod & nuts. A number of junk ring bolts, 12 cylinder cover bolts. One slide valve spindle. Two pair cross-head brasses with bolts & nuts. One pair connecting rod brasses with bolts and nuts. Four bolts and nuts for main bearings. One eccentric rod and set of eccentric straps of each size as fitted. Four eccentric strap bolts & nuts. One screw shaft complete with nut & key. One set of coupling bolts. One set of pads for thrust bearing. Two propeller blades. One air pump rod & nut and one set of air pump valves. One set of valves for all pumps. A number of condenser tubes and ferrules. Three safety valve springs. One set of check valves. A number of boiler tubes. Spares for auxiliary machinery and iron of various sizes.

The foregoing is a correct description,
[Signature] for U.D.C. Manufacturer.



Rpt. 5
Date of writ
No. in Reg. Book.

April 13th May 16th June 18th 25th July 17th 25th Aug 8th 21st 23rd Sept 1st 14th Oct 2nd 7th 22nd
 During progress of work in shops - - -
 Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits 23

Dates of Examination of principal parts - Cylinders April 13th May 16th June 18th July 17th 25th Slides June 18th July 17th 25th
 Covers June 18th July 17th 25th Pistons Sept 14th 17th Rods Aug 8th 23rd Sept 17th
 Connecting rods July 25th Aug 8th Crank shaft June 18th July 25th Thrust shaft June 18th July 25th
 Tunnel shafts June 18th Aug 23rd Screw shaft June 18th July 25th Propeller July 25th
 Stern tube July 17th 25th Engine and boiler seatings July 25th Engines holding down bolts Sept 17th
 Completion of pumping arrangements October 6th Boilers fixed Sept 14th Engines tried under steam October 11th
 Completion of fitting sea connections July 26th Stern tube July 25th Screw shaft and propeller July 26th
 Main boiler safety valves adjusted October 6th Thickness of adjusting washers Forward Boiler F 1/16" A 5/8" Port F 9/16" A 5/8" Star F 7/16"
 Material of Crank shaft Steel Identification Mark on Do. LLOYD'S No 1300 5-6-28 AWR
 Material of Thrust shaft Steel Identification Mark on Do. LLOYD'S No 1394 26-5-28 AWR
 Material of Tunnel shafts Steel Identification Marks on Do. LLOYD'S No 1395 & 1308 21-5-28 AWR
 Material of Screw shafts Steel Identification Marks on Do. LLOYD'S No 1407 & 6-28 AWR LLOYD'S No 140 12-6-28 AWR
 Material of Steam Pipes Steel Test pressure 600lb Date of Test Oct 1st 22nd
 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 No.

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 installed in accordance with the Society's Rules, and the approved plans. The materials and workmanship have been found good and the machinery is eligible, in my opinion, to be classed in the Register Book with the record + LMC 10.28
 To have notation of Tail Shaft, CL and Forced Draught fitted.

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.28 F.D. CL.

J.B.S. 22/11/28
 J.B.S.

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

The amount of Entry Fee ... ¥ 55.00: When applied for, 15-10-1928.
 Special ... ¥ 1445.00:
 Donkey Boiler Fee ... £ : : When received, 3-1-1929.
 Travelling Expenses (if any) ¥ 90.00:

J. Brooke Smith
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 27 NOV 1928

Assigned See Minute on Thure 10.28
 Yka Rpt 4231 attached FA CL

