

REPORT ON OIL ENGINE MACHINERY.

No. 6676

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Date of writing Report 28 Sept 1929 When handed in at Local Office

Port of Kobe

in Survey held at Yama

Date, First Survey 5.4.29 Last Survey 24/9 1929

Number of Visits 13

on the Single Twin Triple Quadruple Screw vessel

"RONSAN MARU"

Tons Gross Net

built at Yama By whom built Mitsui Bussan Kaisha Yard No 162 When built 1929

engines made at " By whom made " " Engine No 162 When made 1929

Boiler made at Lincoln By whom made Babcock + Wilcox Boiler No. 73/4597 When made 1929

Indicated Horse Power (270) 1400 Owners Dairen Kisen Kaisha Port belonging to Dairen

Net Horse Power as per Rule 240 2/3 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Japan China

ENGINES, &c. Type of Engines Diesel Oil Engine (Single type) 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 550 mm Length of stroke 1000 mm No. of cylinders 6 No. of cranks 6

Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge 430 mm Is there a bearing between each crank yes

Revolutions per minute 140 TURNING dia. 1362 mm Weight 435 Kg. Means of ignition self Kind of fuel used oil fuel oil point

Crank Shaft, dia. of journals as per Rule approved as fitted 340 mm Crank pin dia. 340 mm Crank Webs Mid. length breadth 640 mm Thickness parallel to axis 213 mm

Intermediate Shafts, diameter as per Rule approved as fitted 9 1/2" Thrust Shaft, diameter at collars as per Rule approved as fitted 340 mm

Screw Shaft, diameter as per Rule approved as fitted 105 3/8" Is the shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule approved as fitted 1/16" 3/4" Thickness between bushes as per rule approved as fitted 1/2" Is the after end of the liner made watertight in the

stern tube 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

Does the liner do 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

When two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube

Length of Bearing in Stern Bush next to and supporting propeller 4'-3"

Propeller, dia. 11'-3" Pitch 8'-5" No. of blades 4 Material Mn. St. whether Moveable no Total Developed Surface 38 sq. feet

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

Thickness of cylinder liners 38 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

insulating 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

Bilge Water Pumps, No. one Centrifugal Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Large Pumps worked from the Main Engines, No. two Diameter 150 mm Stroke 175 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line No. and Size one 150 tons/hr. How driven Main Engine + Electric Motors

Distast Pumps, No. and size one 150 tons/hr. Lubricating Oil Pumps, including Spare Pump, No. and size (2) 30 tons/hr. each

Are there 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 4-3" and 1-6" in M.R. and 1-3" in tunnel well

Holds, &c. No 1 Hold 2-3" No 2 Hold 2-3" No 3 Hold 2-3"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-6" and 1-3"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces

protected from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes, Centre Suction only

Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting 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 Is the Blow Off Cock fitted with a spigot and brass covering plate yes

What pipes pass through the bunkers How are they protected

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

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 above L.W.L.

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

Main Air Compressors, No. none No. of stages - Diameters 320 - 280 Stroke 140 Driven by

Auxiliary Air Compressors, No. one No. of stages 2 Diameters 210 - 175 Stroke 216 Driven by Aux. Diesel Engine

Small Auxiliary Air Compressors, No. one No. of stages 2 Diameters 90 - 35 Stroke 120 Driven by hand

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

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 yes What means are provided for cleaning their inner surfaces steam hose

Is there a drain arrangement fitted at the lowest part of each receiver yes

STARTING High Pressure Air Receivers, No. one Cubic capacity of each 250 litres Internal diameter 380 mm thickness

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

Starting Air Receivers, No. two Total cubic capacity 190 cu ft each Internal diameter 4'-1 1/2" thickness 3/4"

Seamless, lap welded or riveted longitudinal joint riveted Material S.M. Steel Range of tensile strength 28/32 Working pressure by Rules 25 Kg/cm²

W13 12-0222

SEE COPENHAGEN REPORT ON B. & W. ENGS. Nos 1664 & 1689

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? no, see Gms. Rpt No 1
 PLANS. Are approved plans forwarded herewith for Shafting 14.12.28 Receivers 6.12.28 Separate Tanks
(If not, state date of approval)
 Donkey Boilers General Pumping Arrangements 9.9.29 Oil Fuel Burning Arrangements

SPARE GEAR

Spare gear checked on board & found in order (see list forwarded for Ship No 159)

The foregoing is a correct description,

S.ukas Manufacturer.

Dates of Survey while building
 During progress of work in shops - - 1929 July 5, 30 Aug. 2, 6, 10, 15, 20
 During erection on board vessel - - - 1929 Aug 28, 31 Sept 3, 10, 19, 24
 Total No. of visits 13

Dates of Examination of principal parts—Cylinders and Covers 10.8.29 Pistons 10.8.29 Rods Connecting rods 18/12.28
 Crank shaft 8.6.29 Flywheel shaft Thrust shaft combined with Crank shaft Intermediate shafts 29.3.29 Tube shaft
 Screw shaft 22.3.29 Propeller 5.7.29 Stern tube 5.7.29 Engine seatings 21.8.29 Engines holding down bolts 3.9.29
 Completion of fitting sea connections 24.8.29 Completion of pumping arrangements 11.9.29 Engines tried under working conditions 19.9.29
 Crank shaft, Material Steel Identification Mark 2008 AW Flywheel shaft, Material Identification Mark -
 Thrust shaft, Material Identification Mark Intermediate shafts, Material Steel Identification Marks 1925 A
 Tube shaft, Material Identification Mark Screw shaft, Material Steel Identification Mark 1911 A

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 no If so, have the requirements of the Rules been complied with
 Is this machinery duplicate of a previous case Yes If so, state name of vessel m/v "KON SAN MARU"

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

The main propelling machinery and starting air receivers have been constructed under Special Survey and comply with Rule requirements & approved plans. The materials & workmanship employed are good.

The Auxiliary Machinery of this vessel has been installed under Special Survey. All machinery has been tried under working conditions & found satisfactory.

The Donkey Boiler has been securely installed in the upper part of the Motor Room & its Safety valve has been adjusted under Steam to 102.

In my opinion this vessel is now entitled to the notation in the Register Book of +LMC:9.29, T.S.(C.L.) and records of D.B. (1) and "OIL ENGINE"

13 Copies of crank, screw & intermediate shaft forging certificates attached.

The amount of Entry Fee ... ¥ 41 :- When applied for, 19
 Special AIR RECEIVERS ... ¥ 1003 :- When received, 8.1.30
 Donkey Boiler Fee ... ¥ 64 :-
 Travelling Expenses (if any) See Rule Rpt.:

Clare Bell

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 8 NOV 1929

Assigned

+ L.M.C. 9:29 Oil Engines 100 lbs

CERTIFICATE WRITTEN.



Lloyd's Register Foundation