

REPORT ON MACHINERY.

Received at London Office

WED. 9--JUL. 1919

Date of writing Report 31st May, 1919 When handed in at Local Office 19 Port of Yokohama

No. in Survey held at Yokohama Date, First Survey Decr 12th Last Survey 28th May, 1919
 Reg. Book. (Number of Visits 25)

on the S. S. "Roazan Maru" Tons { Gross 5446
 Net 3406

Master Tsurumi Built at Tsurumi By whom built Asano Shipbuilding Co. Ltd. When built 1919
 (Yard No. 12)

Engines made at Kobe By whom made Kobe Steel Works when made 1919

Boilers made at Tokyo By whom made Ishikawajima S. B. & E. Co. Ltd. when made 1919

Registered Horse Power 3500 Owners Hashimoto Kisen Kaisha Port belonging to Uraga

Nom. Horse Power as per Section 28 513 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

No. of Cylinders _____ No. of Cranks _____

Dia. of Cylinders _____ Length of Stroke _____ Revs. per minute 80 Dia. of Screw shaft _____ as per rule _____ as fitted _____ Material of screw shaft _____

Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____ Is the after end of the liner made water tight _____

in the propeller boss _____ 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 _____ Length of stern bush _____

Dia. of Tunnel shaft _____ as per rule _____ as fitted _____ Dia. of Crank shaft journals _____ as per rule _____ as fitted _____ Dia. of Crank pin _____ Size of Crank webs _____ Dia. of thrust shaft under collars _____

Dia. of screw _____ Pitch of Screw _____ No. of Blades _____ State whether moveable _____ Total surface _____

No. of Feed pumps 2 Diameter of ditto 4 1/2 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 1 G.D. Sizes of Pumps 9" x 15" x 10" No. and size of Suctions connected to both Bilge and Donkey pumps _____

In Engine Room 3-3 1/2" 2 Woodeson feed pumps 10 1/2" x 8" x 8" In Holds, &c. No. 1, 1-3 1/2", No. 2, 2-3 1/2",
No. 3, 2-3 1/2", No. 4, 2-3 1/2". tunnel well 1 - 2 1/2".

No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump Cer. P. Is a separate Donkey Suction fitted in Engine room & size Yes 5"

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None

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 No. 1-2 holds bilge suction How are they protected Wood ceiling

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Worth Bros.

Total Heating Surface of Boilers 7376.4 Is Forced Draft fitted Yes No. and Description of Boilers 3 Multitubular

Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 28-4-19 No. of Certificate 45 I off
30-4-19 46 "
2-6-19 47 "

Can each boiler be worked separately Yes Area of fire grate in each boiler 58.289 ft No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 11.04 sq in Pressure to which they are adjusted 205 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 22" Mean dia. of boilers 14'-3" Length 11'-6" Material of shell plates S

Thickness 1 1/2 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.
 long. seams D.B.S.T.R. Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 10 Lap of plates or width of butt straps 22

Per centages of strength of longitudinal joint _____ rivets 91.4 Working pressure of shell by rules 223 Size of manhole in shell 16 x 12

Size of compensating ring 36 1/2 x 32 1/2 No. and Description of Furnaces in each boiler 3 Deighton Material S Outside diameter 3-10 1/4

Length of plain part _____ top _____ bottom xx Thickness of plates _____ crown _____ bottom _____ Description of longitudinal joint Weld No. of strengthening rings x

Working pressure of furnace by the rules 217 Combustion chamber plates: Material S Thickness: Sides 45/64 Back 44/64 Top 45/64 Bottom 15/16

Pitch of stays to ditto: Sides 10 1/2 x 7 1/2 Back 8 1/2 x 8 1/2 Top 9 1/2 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 207

Material of stays S Area at smallest part 2-03 Area supported by each stay 83 sq in Working pressure by rules 221 End plates in steam space: _____

Material S Thickness 1 3/16 Pitch of stays 18 1/2 x 16 1/2 How are stays secured D. nuts Working pressure by rules 214 Material of stays S

Area at smallest part 7.7 Area supported by each stay 311 sq in Working pressure by rules 249 Material of Front plates at bottom S

Thickness 3/4 Material of Lower back plate S Thickness 3/4 Greatest pitch of stays 8.5 Working pressure of plate by rules 276

Diameter of tubes 3 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates S Thickness: Front 3/4 Back 3/4 Mean pitch of stays 8 3/8

Pitch across wide water spaces 13 1/2 Working pressures by rules 225 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 x 1 1/2 Length as per rule 30 1/2 Distance apart 8 Number and pitch of stays in each 2 x 9 1/2

Working pressure by rules 225 Steam dome: description of joint to shell xx % of strength of joint _____

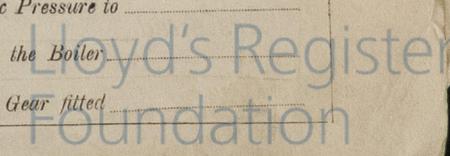
Diameter xx Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____

Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____

Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____

Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____



IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? XXXX

SPARE GEAR. State the articles supplied:— One crank shaft, one propeller shaft, one propeller blade, two connecting rod top - end bolts and nuts, two connecting rod bottom - end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump valves, one set of piston springs, a quantity of assorted bolts and nuts, iron of various sizes.

The foregoing is a correct description,



T. Uchida

Manufacturer.

Dates of Survey while building: During progress of work in shops -- Decr 12, Jan'y 18, 25, Feby 12, 21, March 3, 10, 17, 24, 31, April 4, 8, 14, 16, 23, 24, 25, 29, 30. During erection on board vessel --- May 8, 9, 13, 16, 21, 26, 28. Total No. of visits 26.

Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts: Cylinders, Slides, Covers, Pistons, Rods, Connecting rods, Crank shaft, Thrust shaft, Tunnel shafts, Screw shaft, Propeller, Stern tube, Steam pipes tested 21-5-19, Engine and boiler seatings 21-5-19, Engines holding down bolts 13-5-19, Completion of pumping arrangements 26-5-19, Boilers fixed 21-5-19, Engines tried under steam 28-5-19, Completion of fitting sea connections 29-4-19, Stern tube 24-4-19, Screw shaft and propeller 29-4-19, Main boiler safety valves adjusted 26-5-19, Thickness of adjusting washers P b, A 16, F 13, S b, A 13, F 16, Material of Crank shaft S, Identification Mark on Do., Material of Thrust shaft S, Identification Mark on Do., Material of Tunnel shafts S, Identification Marks on Do., Material of Screw shafts S, Identification Marks on Do., Material of Steam Pipes Steel, Test pressure 600 lbs.

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 Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel See below.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this

vessel has been built under special survey in accordance with the approved plans and the Society's Rules, the materials and workmanship are good, the machinery has been satisfactorily tried under steam, and is in my opinion eligible for the record LMC 5-19.

See Kobe Report No. 2505 for engines.

Duplicate vessels "Kureha Maru" Report No. 2382,

" " " Yoshida Maru No. I. Report No. 2439,

" " " Buyo Maru " Report No. 2452,

" " " Yayoi Maru " Report No. 2462,

" " " Choyo Maru " Report No. 2481.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5-19 F.II.

Rem. 9-7-19

Certificate (if required) 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 ... \$ 500.00 29-5-19 Special ... Donkey Boiler Fee ... Travelling Expenses (if any) \$ 5.50 2-6-19

Committee's Minute TUE. JUL. 15. 1919 Assigned + L.M.C. 5.19

James Cairns Engineer Surveyor to Lloyd's Register of Shipping.



MACHINERY CERTIFICATE WRITTEN.