

Rpt. 4.

REPORT ON MACHINERY.

No. 2548.

Received at London Office

TUE 23 OCT 1911

Date of writing Report Aug 14th 1919. When handed in at Local Office

Port of KOBE. JAPAN.

No. in Survey held at Kobe & Toba
Reg. Book. on the S.S. KAMIJII MARUDate, First Survey 9th Nov. 1918 Last Survey 14th July 1919
Number of Visits 32

Master G. Hashimoto Built at Toba

By whom built Toba Dockyd Co. Ltd.

Gross 1983

Engines made at Kobe

By whom made Kobe Steel Works Ltd

Tons Net 1152

Boilers made at Toba

By whom made Toba Dockyard Co. Ltd.

When built 1919

Registered Horse Power

Owners Teikoku S. S. Co.

Port belonging to Toba.

Nom. Horse Power as per Section 28 254 ✓

Is Refrigerating Machinery fitted for cargo purposes No ✓ Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Triple Expansion Engine No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 20+33+55 ✓ Length of Stroke 39" Revs. per minute 80 Dia. of Screw shaft as per rule 11.8 11.72 Material of screw shaft F. Steel.

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 water tight 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? Length of stern bush 4' 2"

Diameter of Tunnel shaft as per rule 10.60 Dia. of Crank shaft journals as per rule 11.20 Dia. of Crank pin 11 1/2" Size of Crank webs 7x22 Dia. of thrust shaft under shaped collars 11 1/4" Dia. of screw 14'-3" Pitch of Screw 15'-6" No. of Blades 4 State whether moveable No Total surface 66.66 sq. ft.

No. of Feed pumps Two ✓ Diameter of ditto 3 3/4" Stroke 19 1/2" Can one be overhauled while the other is at work Yes with Yamamoto feed.

No. of Bilge pumps Two ✓ Diameter of ditto 3 3/4" Stroke 19 1/2" Can one be overhauled while the other is at work Yes.

No. of Donkey Engines Three ✓ Sizes of Pumps Yamamoto feed 10 1/2 + 8 x 24" Ballast Pump 6+7 x 7" General Donkey 7+4 1/2 x 7" No. and size of Suctions connected to both Bilge and Donkey pumps In Holds, &c. Forward Two 2 3/4 ✓

In Engine Room Two 2 3/4 ✓ In Boiler Room Two 2 3/4 ✓ Tunnel Well one 2" Aft. Two 2 3/4 ✓

No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump Cir. P. Is a separate Donkey Suction fitted in Engine room & size Yes 3"

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both Larger Valves Smaller Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold 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 No Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

What pipes are carried through the bunkers Gilg actions from hold side Bunkers How are they protected Wood covering

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 Upper deck level

OILERS, &c.—(Letter for record) ✓ Manufacturers of Steel Amer. Spiral Pipe Co. (Otis Steel) & Midvale Steel Co.

Total Heating Surface of Boilers 3680 sq. ft. Is Forced Draft fitted Yes No. and Description of Boilers Two single ended Boilers

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 26-6-19 No. of Certificate 360 LBS. 26-6-19

Can each boiler be worked separately Yes Area of fire grate in each boiler 46.5 sq. ft. No. and Description of Safety Valves to

each boiler Two Spring loaded Area of each valve 12.6 sq." Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 13' 5" Length 11-5" Material of shell plates Steel

Thickness 1 5/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Doub. riveted

Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 4 9/16" Lap of plates or width of butt straps 18 3/8" Riveted

Length of plain part top 84.02" Thickness of plates crown 1/2" Description of longitudinal joint Welded No. of strengthening rings ✓

Length of plain part bottom ✓ Thickness of plates bottom 1/2" Working pressure of shell by rules 215 lbs. Size of manhole in shell 12 x 16" oval

Working pressure of furnace by the rules 187 Combustion chamber plates: Material Steel Thickness: Sides 25/32 Back 21/32 Top 23/32 Bottom 25/32

Pitch of stays to ditto: Sides 10 1/2 x 8" Back 1 1/2 x 8 3/4" Top 8 x 10 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 205 lbs.

Material of stays Steel Area at smallest part 1.76" Area supported by each stay 8 1/4 x 8 1/2" Working pressure by rules 226 End plates in steam space:

F.W. Material Steel Thickness 1 1/8" Pitch of stays 16 1/2 x 18 1/4" How are stays secured Dab. nuts Working pressure by rules 187. Material of stays Steel

S.W. Area at smallest part 6.48" Area supported by each stay 18 1/4 x 16 1/2" Working pressure by rules 224 Material of Front plates at bottom Steel

Thickness 29/32" Material of Lower back plate Steel Thickness 27/32 Greatest pitch of stays 13 x 13" Working pressure of plate by rules 207

Diameter of tubes 3" Pitch of tubes 4 1/4 x 4 1/2" Material of tube plates Steel Thickness: Front 29/32 Back 7/8" Mean pitch of stays 8 1/2 x 9"

Pitch across wide water spaces 14" Working pressures by rules 182.5 Girder to Chamber tops: Material Steel Depth and

thickness of girder at centre 11" x 16 x 16" Length as per rule 34 1/2" Distance apart 10 1/2" max Number and pitch of stays in each Three x 8"

Working pressure by rules 218 Steam dome: description of joint to shell None % of strength of joint

Diameter 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

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

JUPERHEATER. 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

W1579-0134

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IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:

- | | | |
|-------------------------------------|--|----------------------------------|
| 1 Set packing rings for each piston | 1 Set main Brg bolts + nuts | 1 Set Ausey feed check valves of |
| 1 " " " springs " | 1 " Coupling Bolts + nuts | 2 Safety valve springs |
| 4 Total flanging Bolts + nuts | 1/20 " Condenser Tubes | 1/2 Set fire Bars |
| 1 Valve Rod each size | 1/20 " Condenser Boreules | etc. etc. |
| 1 Set Eccentric Rods | 1 Air pump Rod + nuts | |
| 1 " Crosshead Brasses | 1/2 Set air pump Head Valves | |
| 1 " Crankpin Brasses | 1 Circulating pump Rod | |
| 1 " " " bolts | 1/2 Set " " Valves | |
| | 1 Complete Set Valves for Feed & Bilge pumps | |
| | 1 Set Main Check (Feed) Valves & Seats. | |

The foregoing is a correct description,
THE TEIKOKU STEAMSHIP CO., LTD.

Intsye

Manufacturer.

Director

1918

Dates of Survey while building

Nov. 9, 12, 15. Dec. 16, 20;

During progress of work in shops - - -

1919

Jan. 24; Febr. 1, 10, 15, 22, 25, 27; Mar. 25,

During erection on board vessel - - -

Apr. 2, 10, 15, 19, 22, 23, 24, 28, 29; May 3, 17, 21; June 2, 16, 26; July 5, 12, 15.

Total No. of visits

32.

Is the approved plan of main boiler forwarded herewith

Yes

Water tests

Dates of Examination of principal parts—Cylinders 23+24/4/19 Slides 2-14-19 Covers 19-4-19 Pistons 19-4-19 Rods 27-3-19 Connecting rods 19-4-19 Crank shaft 27/3/19 Thrust shaft 18-2-19 Tunnel shafts 16-12-18 Screw shaft 26-12-18 27-17-19 Propeller 3-5-19 Stern tube 3-5-19 Steam pipes tested 5-7-19 Engine and boiler seatings 26-6-19 Engines holding down bolts 5-7-19 Completion of pumping arrangements 5-7-19 Boilers fixed 5-7-19 Engines tried under steam 12-7-19 Engines overhaul 14-7-19 Completion of fitting sea connections 17-5-19 Stern tube 2-6-19 Screw shaft and propeller 16-6-19 Thickness of adjusting washers 5-7-19 Lock nuts - Caps locked by Govt. Surveyor (Vessel in Dry dock)

Material of Crank shaft Steel Identification Mark on Do. 21-3-19 Material of Thrust shaft Steel Identification Mark on Do. 18-2-19 ROB 24 Test pressure 360 lbs. per sq. inch.

Material of Tunnel shafts Steel Identification Marks on Do. LLOYDS 18-2-19 Material of Screw shafts Steel Identification Marks on Do. SS 2 LLOYDS 18-2-19

Material of Steam Pipes Copper

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

S.S. "Genyei Maru"

Kobe Report No. 2532

(not Boilers)

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

The Machinery of this Vessel has been made and fitted under Special Survey in accordance with the Requirements of the Rules. The materials & workmanship are good and the Machinery worked satisfactorily on trial. It is eligible in my opinion for the notation **L.M.C 7-19**

Copies of Test Certificates are sent herewith.

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	Yen 20 ⁰⁰	When applied for	Aug. 13 th 1919
Donkey Boiler Fee	Yen 569 ⁰⁰	When received	26/9/19
Travelling Expenses (if any)	£ 62 ⁰⁰		
	Half of total.		

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C 7-19. F.D.

Alexander Watt.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI SER 26. 1919

Assigned

+ L.M.C 7-19 F.D.

MANUFACTURER'S CERTIFICATE
RECEIVED

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