

Rpt. 4.

REPORT ON MACHINERY.

No. 2578.

Received at London Office

TUE 23 OCT 1919

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

Port of KOBE, JAPAN.

No. in Survey held at Kobe + Yoka
Reg. Book.Date, First Survey 9th Nov. 1918 Last Survey 14th July 1919

Number of Visits 32

Gross 1983

Net 1152

When built 1919

on the S.S. KAMIJI MARU

Master G. Hashimoto Built at Yoka

By whom built Yoka Dockyard Co., Ltd.

When built 1919

Engines made at Kobe

By whom made Kobe Steel Works Ltd

when made 1919

Boilers made at Yoka

By whom made Yoka Dockyard Co., Ltd.

when made 1919

Registered Horse Power

Owners Teikoku S. S. Co.

Port belonging to Yoka.

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 11.8 as per rule 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"

Dia. of Tunnel shaft 10.60 as per rule 10.6 Dia. of Crank shaft journals 11.120 as per rule 11.114 Dia. of Crank pin 11.7 Size of Crank webs 7x22 Dia. of thrust shaft under

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's 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 Ballast Pump 6+7x7 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2 3/4 General Donkey 7+4 1/2 x 7 In Holds, &c. Forward Two 2 3/4

In Boiler Room Two 2 3/4 Tunnel Well one 2 3/4 aft. Two 2 3/4

No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.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 stokehold plates Yes Are the Discharge Pipes above 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 stop and brass covering plate yes

What pipes are carried through the bunkers Bilge Suctions from stokehold side 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 (S) Manufacturers of Steel Amer. Spiral Pipe Co. (Olin 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 1150 Y.D.S. Test

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. in. 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'-6 1/2" 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 Double riveted

long. seams Double riveted Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 4 1/2 x 9 1/8 Lap of plates or width of butt straps 18 3/8

Per centages of strength of longitudinal joint rivets 84.02 Working pressure of shell by rules 215 lbs. Size of manhole in shell 12 x 16" oval

Size of compensating ring 29" x 38 x 1 1/8 No. and Description of Furnaces in each boiler Three Suspension Material Steel Outside diameter 3'-4 1/2

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

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 12 x 8 1/4" 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 Double 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 27/32 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 Girders to Chamber tops: Material steel Depth and

thickness of girder at centre N x 16 x 1/2 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

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

W1579-0134

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