

REPORT ON MACHINERY.

No. 2859.

Received at London Office

SAT. JUL. 24 1920

Date of writing Report 9th June 1920 When handed in at Local Office 19 Port of Kobe
No. in Survey held at Kobe Date, First Survey 14th Oct 1919 Last Survey 26th May 1920
Reg. Book. on the STEEL SINGLE SCREW STEAMER "OHIO MARU" (Number of Visits 58.)
Master D. Fukunishi Built at Kobe By whom built Kawasaki Dockyard Co. Ltd. When built 1920
Engines made at Kobe By whom made Kawasaki Dockyard Co. Ltd. when made 1920
Boilers made at do By whom made do when made 1920
Registered Horse Power Owners The Kawasaki Kisen Kaisha Port belonging to Kobe
Nom. Horse Power as per Section 28 437 440 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks 3
Dia. of Cylinders 26" 43 1/2" 72" Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft as per rule 15.41 Material of steel
Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner Is the after end of the liner made water tight
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 5' 5 1/4"
Dia. of Tunnel shaft as per rule 13.48 Dia. of Crank shaft journals as per rule 14.15 Dia. of Crank pin 14 3/4" Size of Crank webs 9 1/2" x 20 1/8" Dia. of thrust shaft under
collars 14 3/8" Dia. of screw 17' 6" Pitch of Screw 19' 0" mean No. of Blades 4 State whether moveable yes Total surface 100 sq. ft.
To. of Feed pumps One Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes (with Weirs Feed)
To. of Bilge pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes
To. of Donkey Engines Three Sizes of Pumps Weirs Feed 9 1/2" x 7 x 24 two Ballast 10" x 11 x 12 dupl. No. and size of Suctions connected to both Bilge and Donkey pumps
in Engine Room Three 3 1/2" Donkey 5 1/2" x 3 1/2" x 9" dupl. No. 1, 3 + 4 Hold each two 3 1/2" No. 2 Hold two 4"
To. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump or pp. Is a separate Donkey Suction fitted in Engine room of size yes 3 1/2"
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 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 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
That pipes are carried through the bunkers None How are they protected
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 Upr. platform of Eng. Rm.

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Illinois Stl. Co. Carnegie Stl. Co. Am. Steel Co.
2252 x 2 + 1132 (AUX. BL'S) Midvale Stl. Co. North Bros. 2SB / Am SB
Total Heating Surface of Boilers = 5636 sq. ft. Is Forced Draft fitted yes No. and Description of Boilers Two 5' 6" + Aux. 5' 6"
Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 8-4-20 No. of Certificate N°1. N°2. Lloyd's Test N°1. N°2.
Can each boiler be worked separately yes Area of fire grate in each boiler 60 1/2 sq. ft. No. and Description of Safety Valves to
each boiler Two Spring loaded Area of each valve 3 3/4" dia. Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 14' 6" Length 12' 0" Material of shell plates steel
Thickness 1 5/16" Range of tensile strength 2678 to 32000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Ends doub.
Long. seams Double riveted Diameter of rivet holes in long. seams 13/8" Pitch of rivets 8 3/4" + 4 3/8" Lap of plates or width of butt straps 19 5/8" x 1 1/4"
To be given percentages of strength of longitudinal joint rivets. 95.84 Working pressure of shell by rules 201 lbs. Size of manhole in shell 16" x 12"
Size of compensating ring (7 1/2" flange) 1 3/8" No. and Description of Furnaces in each boiler 3 Morrison's Material steel Outside diameter 48 1/4"
Length of plain part top Thickness of plates crown 2 1/32 Description of longitudinal joint Weld Suspension No. of strengthening rings
Working pressure of furnace by the rules 221 lbs. Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 7/8"
Pitch of stays to ditto: Sides 8 5/8" x 8 1/2" Back 8 1/2" x 9" Top 8 1/2" x 9 3/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 203 lbs.
Material of stays steel Area at smallest part 2.1 sq. ft. Area supported by each stay 8 1/2" x 9 3/8" Working pressure by rules 230 lbs. End plates in steam space:
Material steel Thickness 1 5/16" Pitch of stays 19 3/4" x 20 1/2" How are stays secured Doub. nuts Working pressure by rules 202 lbs. Material of stays steel
Area at smallest part 10" Area supported by each stay 19 3/4" x 20 1/2" Working pressure by rules 260 lbs. Material of Front plates at bottom steel
Thickness 13/16" Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 13 1/2" at widest Working pressure of plate by rules 232 lbs.
Diameter of tubes 3 3/4" Pitch of tubes 4 1/6" x 4 5/16" Material of tube plates steel Thickness: Front 1 1/16" Back 13/16" Mean pitch of stays 8 3/4"
Pitch across wide water spaces 13 3/4" + 5/8" Working pressures by rules 240 lbs. Girders to Chamber tops: Material steel Depth and
Thickness of girder at centre 10 3/4" x 13 1/2" (2) Length as per rule 34 1/2" Distance apart 9 3/8" Number and pitch of stays in each 3 @ 8 1/2"
Working pressure by rules 220 lbs. Steam dome: description of joint to shell None % of strength of joint

PERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
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

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Lloyd's Register
Foundation

W 1285-0060

AUXILIARY
IS A ~~DOCK~~ BOILER FITTED?

yes

If so, is a report now forwarded?

yes

SPARE GEAR. State the articles supplied:—

Four Main bearing bolts + nuts. ✓ Set packing rings, springs each piston. ✓ Centrifugal pump impeller
Two Crank pin bolts + nuts. ✓ Set junk ring bolts + nuts. ✓ shaft + nut.
Two Crosshead bolts + nuts. ✓ Set of packing for each piston rods + valve rods. ✓ A.P. rod + nut.
Set coupling bolts + nuts. ✓ Propeller shaft with nut. ✓ 3 Safety valve spring
Set feed + bilge pump valves. ✓ 1 Feed check valve + seat. ✓ Cond. Blr tubes etc
Assorted bolts, nuts + iron. ✓ Slide valve spindle each size ✓ 1 Set A.P. Head valves.

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.

Per

K. Kawano

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1919 Oct 14, 22; Nov 7; Dec 8, 11, 13, 14, 17, 23, 27; 1920 Jan 8, 14, 19, 22, 26, 27, 28, 29, 31; Feb 3, 7, 9, 17, 21, 22, 24, 28; Mar 1, 3, 8, 9, 12, 13, 16, 19, 20, 22, 23, 25, 26, 27; Apr 1, 2, 8, 10, 12, 20, 23, 28; May 1, 7, 11, 13, 26; Total No. of visits 58. Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 27-3-20 Slides 1-5-20 Covers 20-4-20 Pistons 20-4-20 Rods 28-4-20 Connecting rods 20-3-20 Crank shaft 27-3-20 Thrust shaft 22-3-20 Tunnel shafts 23-3-20 Screw shaft 23-3-20 Propeller 25-3-20 Stern tube 16-3-20 Steam pipes tested 26-3-20 Engine and boiler seatings 30-3-20 Engines holding down bolts 20-4-20 Completion of pumping arrangements 7-5-20 Boilers fixed 5-5-20 Engines tried under steam 12-5-20 Completion of fitting sea connections 30-3-20 Stern tube 22-3-20 Screw shaft and propeller 30-3-20 Main boiler safety valves adjusted 7-5-20 Thickness of adjusting washers Look nuts (Sealed by Covert Jnr 8" Material of Crank shaft 7 Steel 440YDS Identification Mark on Do. Material of Thrust shaft 7 Steel Identification Mark on Do. Material of Tunnel shafts 7 Steel 440YDS Identification Marks on Do. Material of Screw shafts 7 Steel Identification Marks on Do. Material of Steam Pipes Solid drawn Steel Test pressure 600 lbs water. Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. Spare T.S.

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 "WAR QUEEN" (Kobe Reg. No. 13)

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

S/S WAR PRINCE (" " ")
S/S SINGAPORE MARU (" " ")
S/S CHINA MARU (" " ")
S/S BELGIUM MARU (" " ")

The Machinery has been made & fitted under Special Survey in accordance with the requirements of the Rules and the materials workmanship are good.

The Machinery is eligible in my opinion for the notation L.M.C. 5-20 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 5-20 FD

Certificate (if required) to be sent to

The amount of Entry Fee ... 30.- When applied for, 30 June 1920
Special ... £ 7.35.-
Auxiliary Boiler Fee ... £ Included
Travelling Expenses (if any) £ 10.- When received, 14 June 1920

Committee's Minute

FRI JUL 30 1920

Assigned

+ L.M.C. 5-20 F.D.

A. Watt.

Engineer Surveyor to Lloyd's Register of Shipping

CERTIFICATE WRITTEN



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