

## REPORT ON MACHINERY.

No. 2803.

Received at London Office

MON. JUN. 14 1920

Date of writing Report 28<sup>th</sup> Apr. 1920 When handed in at Local Office

19 Port of Kobe

No. in Survey held at Kobe  
Reg. Book.Date, First Survey 3<sup>rd</sup> Sept. 1919. Last Survey 27<sup>th</sup> April 1920

(Number of Visits 62.)

Gross 5869.86  
Net 4266.26

on the Steel Single Screw Steamer "CHINA MARU"

Master S. Karaki Built at Kobe

By whom built Kawasaki Dockyard Co. Ltd. When built 1920

Engines made at Kobe

By whom made The 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 28 440<sup>437</sup>

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted yes

ENGINES, &amp;c.—Description of Engines TRIPLE EXPANSION

No. of Cylinders THREE No. of Cranks 3

Dia. of Cylinders 26:43½:72 Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft as per rule 15.41 as fitted 16" 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 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 5'-5¼"

Dia. of Tunnel shaft as per rule 13.48 as fitted 13¾ Dia. of Crank shaft journals as per rule 14.15 as fitted 14¾ Dia. of Crank pin 14¾ Size of Crank webs 9½x20½ Dia. of thrust shaft under collars 14¾ Dia. of screw 17'-6" Pitch of Screw 19'-0" MEAN. No. of Blades 4 State whether moveable yes Total surface 100 SQ. FT.

No. of Feed pumps ONE Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes (with Weir's Feed)

No. of Bilge pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes

No. of Donkey Engines THREE Sizes of Pumps WEIRS FEED 9½x7x24 TWO BALLAST 10½x11x12 DUPL. GEN. SERV. 7½x5x6 DONKEY 5½x3½x9 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room THREE 3½ In Holds, &amp;c. Nos 1, 3 + 4 HOLD EACH TWO 3½

ONE 3½ TO TUNNEL WELL No 2 HOLD TWO 4"

No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump GR. P. Is a separate Donkey Suction fitted in Engine room &amp; size yes 3½"

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

What 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 UP? PLATFORM OF ENG. RM.

BOILERS, &amp;c.—(Letter for record S) Manufacturers of Steel ILLINOIS STEEL CO, CARNEGIE STEEL CO, AM. SPIRAL CO. (Furnaces) 2252x2+1132(AUX. BLT) 25.8 &amp; 1AUX S.B.

Total Heating Surface of Boilers=5636 Is Forced Draft fitted yes No. and Description of Boilers Two S.E. + AUX. S.E. Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 7-2-20 13-2-20 No. of Certificate 46075 TEST WT. 200 LBS N°2 7-2-20 W.L.P. 13-2-20

Can each boiler be worked separately yes Area of fire grate in each boiler 60½ No. and Description of Safety Valves to each boiler TWO SPRING LOADED Area of each valve 3¾ 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 1½" Range of tensile strength 26.78 to 32.0 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams ENDS DOUB. TREB. RIVETED

long. seams DOUB. STRAPS Diameter of rivet holes in long. seams 1⅜" Pitch of rivets 8¾+4⅜" Lap of plates or width of butt straps 19½x1¼

Per centages of strength of longitudinal joint rivets 95.84 plate 84.28 Working pressure of shell by rules 201 lbs. Size of manhole in shell 16" x 12"

Size of compensating ring (7½+flange) 1⅜ No. and Description of Furnaces in each boiler 3 MORISON'S SUSPENSION Material STEEL Outside diameter 48¼"

Length of plain part top bottom Thickness of plates crown bottom 21/32 Description of longitudinal joint WELD No. of strengthening rings

Working pressure of furnace by the rules 221 lbs. Combustion chamber plates: Material STEEL Thickness: Sides 1½" Back 1½" Top 1½" Bottom 7/8"

Pitch of stays to ditto: Sides 8½x8½ Back 8½x9 Top 8½x9½ 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 Area supported by each stay 8½x9½ Working pressure by rules 230 lbs. End plates in steam space:

Material STEEL Thickness 1½" Pitch of stays 19¾x20½ 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 19¾x20½ 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 13½" AT WIDE Working pressure of plate by rules 232 lbs.

Diameter of tubes 3¼" Pitch of tubes 4½x4½ Material of tube plates STEEL Thickness: Front 1" Back 13/16" Mean pitch of stays 8¾"

Pitch across wide water spaces 13¾+5/8 Working pressures by rules 240 lbs. Girders to Chamber tops: Material STEEL Depth and

thickness of girder at centre 10¾x13 (2) Length as per rule 34½" Distance apart 9¾" Number and pitch of stays in each 3 @ 8½"

Working pressure by rules 220 lbs. 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

009182 - 009191 - 0230



AUXILIARY  
IS A ~~DONKEY~~ 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 in
Two Crank-pin bolts + nuts.	Set junk ring bolts + nuts.	+ shaft + nut.
Two Crosshead bolts + nuts.	1 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
Assorted bolts nuts + iron.	Slide valve spindle each size	1 Set A.P. Head val

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.,

Per

Secretary.

Manufacturer.

Dates of Survey while building	During progress of work in shops --	1919 Sept 3, 15; Oct 9, 14, 15, 16, 23; Nov 5, 15, 19, 22, 26; Dec 3, 10, 11, 12, 13, 14, 17, 18, 25, 26; Jan 8, 10, 15, 16, 17, 18, 27	1920 Jan 8, 10, 15, 16, 17, 18, 27
	During erection on board vessel --	Jan 24, 27, 28, 29, 30; Feb 2, 5, 6, 7, 9, 10, 12, 13, 16, 18, 19, 23, 24, 26; Mar 3, 8, 10, 12, 15, 17, 19, 22, 27, 30; Apr 6 + 27	
	Total No. of visits	62.	

Is the approved plan of main boiler forwarded herewith

yes

AUXILIARY

Donkey

yes

Dates of Examination of principal parts—Cylinders 12-2-20 Slides 12-3-20 Covers 8-3-20 Pistons 3-3-20 Rods 15-3-20

Connecting rods 23-2-20 Crank shaft 24-2-20 Thrust shaft 9-2-20 Tunnel shafts 9-2-20 Screw shaft 26-1-20 Propeller 5-2-20

Stern tube 29-1-20 Steam pipes tested 26-12-19 Engine and boiler seatings 10-2-20 Engines holding down bolts 19-3-20

Completion of pumping arrangements 22-3-20 Boilers fixed 19-3-20 Engines tried under steam 28-3-20 OVERHAUL 30-3-20

Completion of fitting sea connections 10-2-20 Stern tube 2-2-20 Screw shaft and propeller 10-2-20

Main boiler safety valves adjusted 22-3-20 Thickness of adjusting washers Lock nuts (Caps sealed by Lock)

Material of Crank shaft 7 Steel Identification Mark on Do. LLOYDS 24-2-20 WL R. Material of Thrust shaft 7 Steel Identification Mark on Do. PA 9-2-20 WL R.

Material of Tunnel shafts 7 Steel Identification Marks on Do. LLOYDS 7-2-20 WL R. Material of Screw shafts 7 Steel Identification Marks on Do. PA 26-1-20 WL R.

Material of Steam Pipes SOLID DRAWN STEEL Test pressure 600 lb. spare T.S. 27-2-20 WL R.

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. WAR QUEEN KOBE RPT. No.

General Remarks (State quality of workmanship, opinions as to class, &c.) S/S NAPLES MARU " " " 2

S/S PORTSAID MARU " " " 2

S/S ENGLAND MARU " " " 2

S/S DENMARK MARU " " " 2

S/S HOLLAND MARU " " " 2

S/S SWEDEN MARU " " " 2

The Forgings for HP, IP, LP Crank Shaft Journals + Pins also Working Screw Shaft were made at Oshima Steel Wks, Tokyo and finished at Kawasaki Dockyard Co. Kobe. All the other forgings were made at the Kawasaki Hyogo Steelworks and finished at the Dockyard.

The machinery of this Vessel has been made and fitted under Special Survey in accordance with the requirements of the Rules and the workmanship and materials are good. It is eligible, it is submitted, for the notation + L.M.C. 4.20.

It is submitted that

this vessel is eligible for

THE RECORD + L.M.C. 4.20 F.D.

15/6/20.

The amount of Entry Fee ... Yen 30.

Special ... 735.

Boiler Fee Included.

Travelling Expenses (if any) " 50.

When applied for,

13th Apr 1920

When received,

20th Apr 1920.

Committee's Minute

Assigned

FRI. JUN. 18 1920

+ L.M.C. 4.20 F.D.

A. Watt.

Engineer Surveyor to Lloyd's Register of Shipping



© 2021

Lloyd's Register Foundation