

# REPORT ON MACHINERY.

No. 2648.

Received at London Office

FRI 2-JAN. 1920

Date of writing Report Nov 18<sup>th</sup> 1919 When handed in at Local Office

Port of Kobe.

Survey held at Kobe  
 in Survey held at Kobe  
 in Book.

Date, First Survey Apr. 24<sup>th</sup> Last Survey Nov. 6<sup>th</sup> 1919

(Number of Visits 35)

on the Steel Single Screw Steamer "TASMANIA MARU"

Gross 1105  
 Tons 2521  
 Net 1919

Master R. Yoshimori Built at Kobe

By whom built Kawasaki Dockyard Co. Ltd. When built 1919

Engines made at Kobe

By whom made Kawasaki Dockyard Co. Ltd.

when made 1919

Boilers made at do

By whom made do

when made 1919

Registered Horse Power

Owners Kawasaki Kisen Kaisha

Port belonging to Kobe

Horse Power as per Section 28 356

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c. — Description of Engines Triple Expansion

No. of Cylinders 3

No. of Cranks 3

No. of Cylinders 23 1/2 + 39 + 65 Length of Stroke 48" Revs. per minute max 84

Dia. of Screw shaft 14 3/8

Material of screw shaft Steel

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

are fitted, is the shaft lapped or protected between the liners

Length of stern bush 63 3/4"

Dia. of Tunnel shaft 12 1/8

Dia. of Crank shaft journals 13 3/4"

Dia. of Crank pin 13 1/2"

Size of Crank webs 25 1/4 x 9"

Dia. of thrust shaft under

as per rule 12 1/8

as fitted 13 1/2"

Dia. of screw 16' - 6"

Pitch of Screw 17' - 0"

No. of Blades 4

State whether movable Yes

Total surface 85 sq. ft.

of Feed pumps One

Diameter of ditto 4 1/2"

Stroke 24"

Can one be overhauled while the other is at work Yes (with Weir's Independent Feed pumps)

of Bilge pumps Two

Diameter of ditto 4 1/2"

Stroke 24"

Can one be overhauled while the other is at work Yes

of Donkey Engines Three

Sizes of Pumps Weir's Feed 9 1/2 x 7 1/2 24 dupl. Ballast 10 x 11 x 12 " Gen. Serv. Dry 7 1/2 x 5 x 6 "

No. and size of Suctions connected to both Bilge and Donkey pumps

In Holds, &c. No. 1 Two 3 1/2" No. 2 Two 3 1/2" No. 3 Two 3 1/2"

of Engine Room Three 3 1/2"

of Bilge Room Two 3 1/2"

Bilge Injections 1 sizes 7 1/2"

Connected to condenser, or to circulating pump Cur. p.

Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"

Are 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 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

Are the pipes carried through the bunkers Two 3 1/2" Bilge Suctions from No. 1 & 2

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

MANUFACTURERS OF STEEL Illinois Steel, Carnegie Steel, Am. Spiral Pipe Wks

(Letter for record)

Heating Surface of Boilers 16100'

Forced Draft fitted Yes

No. and Description of Boilers Two Single Ended S.B.

Working Pressure 200"

Tested by hydraulic pressure to 100 lbs.

Date of test 8-8-19 12-8-19

No. of Certificate 400 LBS 200 LBS W.P.

Can boiler be worked separately Yes

Area of fire grate in each boiler 60.50'

No. and Description of Safety Valves to

Are they fitted with easing gear Yes

Are they fitted with easing gear Yes

Distance between boilers or uptakes and bunkers or woodwork 18"

Mean dia. of boilers 14' - 6"

Length 12' - 0"

Material of shell plates Steel

Range of tensile strength 28532 tons

Are the shell plates welded or flanged Welded

Description of riveting: cir. seams reelid

Diameter of rivet holes in long. seams 1 3/8"

Pitch of rivets 8 3/4" + 4 1/2"

Lap of plates or width of butt straps 19 3/8" x 1 1/4"

ages of strength of longitudinal joint 84.3

Working pressure of shell by rules 202

Size of manhole in shell 18" x 22"

Compensating ring (1 1/2" + flange) x 3/8"

No. and Description of Furnaces in each boiler Three Morrison's

Material Steel

Outside diameter 18 1/4"

of plain part ✓

Thickness of plates 2 1/32

Description of longitudinal joint Welded

No. of strengthening rings ✓

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"

Stays to ditto: Sides 8 1/2" x 8 5/8"

Back 8 1/2" x 9"

Top 8 5/8" x 9 3/8"

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 202

Cell of stays Steel

Area at smallest part 2.10"

Area supported by each stay 76.5"

Working pressure by rules 247

End plates in steam space:

Steel Thickness 1 5/16"

Pitch of stays 19 3/4" x 20 1/2"

How are stays secured Doub. nuts + small washers

Working pressure by rules 202

Material of stays Steel

Smallest part 10.12

Area supported by each stay 105"

Working pressure by rules 260

Material of Front plates at bottom Steel

Material of Lower back plate Steel

Thickness 3/4"

Greatest pitch of stays 15 x 15

Working pressure of plate by rules 225

of tubes 3 1/4"

Pitch of tubes 4 5/8" x 4 1/2"

Material of tube plates Steel

Thickness: Front 13/16"

Back 13/16"

Mean pitch of stays 8 3/4"

Gross wide water spaces 13 3/4" + 3/4" doub.

Working pressures by rules 267

Girders to Chamber tops: Material Steel

Depth and

of girder at centre 10 3/4" x 1 3/16" (2)

Length as per rule 34 1/2"

Distance apart 9 3/8"

Number and pitch of stays in each Three @ 8 1/2"

pressure by rules 202

Steam dome: description of joint to shell

% of strength of joint

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Working pressure of shell by rules

Crown plates

Thickness

How stayed

HEATER. Type None

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

Pressure to which each is adjusted

Is Easing Gear fitted

Total No. of Vis

Safety Valve

19, 22, 25, 26, 27, 30, 31

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Four main bearing bolts + nuts. Set packing rings + springs for pistons. Set feed check valves + seats.  
Four Crank-pin " " Pair Eccentric Rods Centrif. Impeller + Shaft  
Four Crosshead pin " Valve Rod for each Valve Two Safety-Valve Springs  
Set coupling bolts + nuts. Crank-pin + Crosshead pin brasses Set Feed + Bilge P. Valves + seats  
Propeller shaft + nut. Lloyd's 23-7-19 Air pump Rod + nut 1/32 Set Condenser tubes + flange  
1/4 Set Junk-ring bolts + nuts Set A.P. Head valves Fire Bars, Assorted bolts nuts + studs etc.

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.

Per

Secretary.

Manufacturer.

1919  
Dates of Survey while building { During progress of work in shops - - - Apr. 24, 25, May 26, June 6, 7, July 1, 16, 21, 23, 25, 31; Aug. 1, 2, 4, 8, 12, 13, 20, 23, 27, 28  
During erection on board vessel - - - Sept. 1, 2, 3, 6, 8, 10, 11; Oct. 3, 7, 9, 22, 23, 24, 28; Nov. 6<sup>th</sup> and Steel Works.  
Total No. of visits 36.

Is the approved plan of main boiler forwarded herewith Yes.

Same as for S/S. SHANGHAI MARU

Rpt. No. 2417.

Dates of Examination of principal parts—Cylinders 3-9-19 Slides 3-9-10-19 Covers 11-9-19 Pistons 11-9-19 Rods 3-9-19

Connecting rods 27-8-19 Crank shaft 4-7-19 Thrust shaft 4-7-19 Tunnel shafts 1-9-19 Screw shaft 23-7-19 Propeller 6-9-19

Stern tube 3-9-19 Steam pipes tested 23-7-19 Engine and boiler seatings 7-10-19 Engines holding down bolts 24-10-19

Completion of pumping arrangements 23-10-19 Boilers fixed 22-10-19 Engines tried under steam overhaul 28-10-19

Completion of fitting sea connections 10-9-19 Stern tube 2-10-19 Screw shaft and propeller 7-10-19

Main boiler safety valves adjusted 24-10-19 Thickness of adjusting washers Locknuts (Sealed by Japanese Gov. Ins.)

Material of Crank shaft Steel Identification Mark on Do. Lloyd's 4-7-19 Material of Thrust shaft Steel Identification Mark on Do. Lloyd's 4-7-19

Material of Tunnel shafts Steel Identification Marks on Do. Lloyd's 1-9-19 Material of Screw shafts Steel Identification Marks on Do. Lloyd's 23-7-19

Material of Steam Pipes Steel Test pressure 600 lbs.

Is an installation fitted for burning oil fuel Yes 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. Shanghai Maru (Rpt. 2417)

General Remarks (State quality of workmanship, opinions as to class, &c.) { S/S. Hankow Maru (Rpt. 2453)

{ S/S. Sydney Maru (Rpt. 2599)

{ S/S. Caroline Maru (Rpt. 2600)

The Machinery of this vessel has been made + fitted

under special survey in accordance with the requirements

of the Rules and the materials and workmanship are good.

It is eligible in my opinion for the notation

+ L.M.C. 11-19.

It is submitted that this vessel is eligible for

THE RECORD + L.M.C. 11-19. F.D.

3/1/20

A Watt.

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee Yen 30.- When applied for,

Special ... £ 6.61.- 7-11-1919

Donkey Boiler Fee £ : : When received,

Travelling Expenses (if any) £ 15.- 13-11-1919

Committee's Minute

Assigned

TUE JAN 6 - 1920

+ L.M.C. 11, 19. F.D.

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Lloyd's Register

Foundation