

Rpt. 4.

REPORT ON MACHINERY

No. 2599

TUE. 14 OCT. 1919

Received at London Office

Date of writing Report 1st Sept 1919. When handed in at Local Office

Port of Kobe

No. in Survey held at
Reg. Book.

Kobe

Date, First Survey Feb. 19th

Last Survey Aug. 18th 1919

on the Steel Single Screw Steamer "Karachi Maru"

(Number of Visits 52)

Gross 5860

Net 4260

Master Y. Saito 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 Tokusai Kisen Kabushiki Kaisha

Port belonging to Kobe

Nom. Horse Power as per Section 28

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 Three

Dia. of Cylinders 26: 43 1/2 : 72

Length of Stroke 48"

Revs. per minute 70

Dia. of Screw shaft

as per rule 15.4

Material of screw shaft

Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

No Liner

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

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

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

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

No. of Bilge pumps Two

Diameter of ditto 5"

Stroke 24"

Can one be overhauled while the other is at work

No. of Donkey Engines Three

Sizes of Pumps

Weirs feed 9 1/2 x 7 x 24 two

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

In Engine Room Three 3 1/2

and One 3 1/2 to tunnel well

In Holds, &c. Nos. 1, 3 + 4 Hold each two 3 1/2

No. 2 Hold two 4"

No. of Bilge Injections 1

sizes 9"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

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

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

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

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from Upper platform of Eng. Rm.

BOILERS, &c.—(Letter for record

Manufacturers of Steel

Illinois Steel Co, Carnegie Steel Co and

2252 x 2 + 1132 (Aux. 3Lr)

Amer. Spiral Pipe Works (Furnaces)

Total Heating Surface of Boilers = 5636

Is Forced Draft fitted

No. and Description of Boilers

Two 2. E. + Aux. S. E.

Working Pressure 200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

24-6-19

No. of Certificate

No. 1. Lloyd's Test No. 2

Can each boiler be worked separately

Area of fire grate in each boiler

60 1/2 sq. ft.

No. and Description of Safety Valves

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

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

14' - 6"

Length

12' - 0"

Material of shell plates

Thickenss

Range of tensile strength

26-18 to 32

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Ends 5/16"

long. seams

Diameter of rivet holes in long. seams

1 1/16"

Pitch of rivets

9/8 + 1 1/16"

Lap of plates or width of butt straps

20 3/8 + 1 1/8"

Per centages of strength of longitudinal joint

rivets 95.84

plate 81.28

Working pressure of shell by rules

200 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring (1 1/2" flange)

No. and Description of Furnaces in each boiler

3 Morrison's

Material

Steel

Outside diameter

18 1/4"

Length of plain part

Thickenss of plates

crown 2 1/32

bottom 3/32

Description of longitudinal joint

Weld

No. of strengthening rings

Working pressure of furnace by the rules

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 1/2 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

Material of stays

Area at smallest part

2.1"

Area supported by each stay

8 1/2 x 9 3/8

Working pressure by rules

230 lbs.

End plates in steam space:

Material

Thickenss

1 3/8"

Pitch of stays

19 3/4 x 20 1/2

How are stays secured

Doub. nuts

Working pressure by rules

201 lbs.

Material of stays

Area at smallest part

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

Thickenss

13/16"

Material of Lower back plate

Thickenss

Material of tube plates

Steel

Thickenss: Front

1"

Back

13/16"

Mean pitch of stays

8 3/4"

Pitch across wide water spaces

13 3/4 + 3/4

Working pressures by rules

210 lbs.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 3/4 + 13/16 (2)

Length as per rule

Pitch across wide water spaces

13 3/4 + 3/4

Working pressures by rules

210 lbs.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 3/4 + 13/16 (2)

Length as per rule

Working pressure by rules

220 lbs.

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickenss of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickenss

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

Is Easing Gear fitted

Diameter of Safety Valve

Pressure to which each is adjusted

Lloyd's Register

Foundation

W1272-0057

IS A DONKEY BOILER FITTED? *Aux. Bkr. only* 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
Two Crank-pin	Set junk ring bolts + nuts	impeller shaft.
Two Crosshead	One part Crank shaft.	Crosshead + Crank
Set coupling	Propeller shaft.	A. B. rod + nut.
Set Feed + Bldg pump valves	Four blades + 2 sets studs + nuts	3 Safety Valve spr
Assorted bolts + nuts + iron	Slide Valve sprindles each size	Cond. + Bkr. tubes etc.

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.

Per *J. A. Kane* Secretary.

Manufacturer.

Dates of Survey while building: During progress of work in shops - *Feb 18, 21, 25, 28; Mar 3, 10, 17, 21, 24, 26, 29; Apr 5, 11, 14, 21, 30; May 6, 10, 13*
During erection on board vessel - *May 19, 23, 26, 31; June 3, 5, 6, 10, 11, 12, 14, 16, 18, 19, 23, 24, 26, 27, 28; July 5, 7, 15, 16, 17, 21*
Total No. of visits *52*

Is the approved plan of main boiler forwarded herewith? *No - See Rpt. 25*

Dates of Examination of principal parts - Cylinders *7-6-19* Slides *17-7-19* Covers *7-6-19* Pistons *16-7-19* Rods *16-7-19*
Connecting rods *17-7-19* Crank shaft *23-6-19* Thrust shaft *23-6-19* Tunnel shafts *7-7-19* Screw shaft *6-6-19* Propeller *6-6-19*
Stern tube *11-7-19* Steam pipes tested *15-7-19* Engine and boiler seatings *21-7-19* Engines holding down bolts *1-8-19*
Completion of pumping arrangements *5-8-19* Boilers fixed *1-8-19* Engines tried under steam *9-8-19*
Completion of fitting sea connections *21-7-19* Stern tube *21-7-19* Screw shaft and propeller *25-7-19*
Main boiler safety valves adjusted *6-8-19* Thickness of adjusting washers *Locknuts - Caps sealed by Gen. Insp.*
Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S 23-6-19 AN R* Material of Thrust shaft *Steel* Identification Mark on Do. *PF. 9 23-6-19 AN R*
Material of Tunnel shafts *Steel* Identification Marks on Do. *LLOYD'S 7-7-19 AN R* Material of Screw shafts *Steel* Identification Marks on Do. *PF. 9 23-6-19 AN R*
Material of Steam Pipes *Steel* Test pressure *600 lbs.*

Is an installation fitted for burning oil fuel? *No*

Is the flash point of the oil to be used over 150°F. *Yes*

Have the requirements of Section 49 of the Rules been complied with? *Yes*

Is this machinery duplicate of a previous case? *yes* If so, state name of vessel *55 War Queen Rpt No 2009*

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

55 War Queen Rpt. No. 2031
" Glasgow Maru " " 2324
" Singapore Maru " " 2531
" Naples Maru " " 2584
" Port Said Maru " " 2589

The Machinery of this vessel has been made + fitted under Special Survey in accordance with the requirements of the Rules, and the Workmanship + materials are good.

The vessel is eligible, in my opinion, for the notation *+ L.M.C. 8.19.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8.19. F.D.

Roll

16/10/19

APR

The amount of Entry Fee *Yes* 30.- : When applied for, *Aug. 12th 1919*
Special *Yes* 135.- :
Boiler Fee *included* :
Travelling Expenses (if any) *Yes* 15.- : When received, *Aug. 16th 1919*

Committee's Minute

Assigned

TUE. 21 OCT. 1919

+ L.M.C. 8.19

F.D.

MASTERY CERTIFICATE

A. Watt.

Engineer Surveyor to Lloyd's Register of Shipping.



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