

## REPORT ON MACHINERY.

No.

Received at London Office

Date of writing Report

Oct 28<sup>th</sup> 1919

When handed in at Local Office

19

Port of Kobe

No. in Survey held at  
Reg. Book.

Kobe

Date, First Survey

June 13<sup>th</sup>

Last Survey

Oct 14<sup>th</sup> 1919

(Number of Visits 47.)

on the Steel Single Screw Steamer "Italy Maru"

Gross 5859

Net 4259

Master S. Orii

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

Nom. Horse Power as per Section 28

440

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

Three

Dia. of Cylinders

26: 43½: 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

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

Dia. of Crank shaft journals

as per rule 14.15

Dia. of Crank pin

14¾

Size of Crank web

9½ x 20½

Dia. of thrust shaft under

+ 26/8 at pin + journal

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

Weir's feed 9½ x 7 x 24 two

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"

No. 2 Hold

two 4"

No. of Bilge Injections

1

sizes

9"

Connected to condenser, or to circulating pump

Cur. 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 E.R.

## BOILERS, &amp;c.—(Letter for record

S.)

Manufacturers of Steel

Illinois Steel Co., Carnegie Steel Co., &amp; American

2252 x 2 + 1132 (AUX. BLR)

Special Pipe Co. (Furnaces).

Total Heating Surface of Boilers = 5636 sq. ft. Forced Draft fitted

yes

No. and Description of Boilers

Two S. Co. + Aux. S. Co.

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

27-8-19

2-9-19

No. of Certificate

M. 1. 44075 M. 2. 44075

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

1¾"

Range of tensile strength

2678632

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

ends Double

long. seams

Double straps

Diameter of rivet holes in long. seams

17/16"

Pitch of rivets

9/8" + 4/16"

Lap of plates or width of butt straps

20/8" + 1/8"

Per centages of strength of longitudinal joint

rivets 95.84

plate 84.28

Working pressure of shell by rules

200 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

(7½" flange) 15/16"

No. and Description of Furnaces in each boiler

3 Morisons

Material

Steel

Outside diameter

48¼"

Length of plain part

top ✓

Thickness of plates

crown 21/32

Description of longitudinal joint

Weld

No. of strengthening rings

✓

Working pressure of furnace by the rules

221

Combustion chamber plates: Material

Steel

Thickness: Sides

11/16"

Back

11/16"

Top

11/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

8½ x 8½

Back

8½ x 9

Top

8½ x 9¾

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

8½ x 9¾

Working pressure by rules

230 lbs.

End plates in steam space:

Material

Steel

Thickness

15/8"

Pitch of stays

19¾ x 20½

How are stays secured

Double nuts

Working pressure by rules

201 lbs.

Material of stays

Steel

Area at smallest part

10"

Area supported by each stay

19¾ x 20½

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

13/2 at wide

Working pressure of plate by rules

200 lbs.

Diameter of tubes

3/4"

Pitch of tubes

4 1/6 x 4 1/6

Material of tube plates

Steel

Thickness: Front

1"

Back

13/16"

Mean pitch of stays

8 3/4"

Pitch across wide water spaces

13 3/4 + 3/4 doubled

Working pressures by rules

210 lbs.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 3/4 + 1/6 (2)

Working pressure by rules

220 lbs.

Steam dome: description of joint to shell

✓

% 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

010526 - 010536 - 0017



IS A DONKEY BOILER FITTED? *Ausc. Bl. 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 pin
Set coupling	Propeller shaft	A.B. rod + nut
Set Feed + Bilge pump valves	Four blades + 2 sets studs + nuts	3 Safety valve springs
Assorted bolts + nuts + iron	Slide Valve spindle each size	Cond. + Bl. tubes etc

The foregoing is a correct description,

**Kawasaki Dockyard Co., Ltd.**

Per

Secretary.

Manufacturer.

Dates of Survey while building  
During progress of work in shops - June 13, 16, 20, 25, 30; July 2, 7, 8, 10, 11, 19, 23, 24, 28, 31; Aug 1, 2, 4, 6, 7, 8, 9, 11, 12, 13, 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29; Sept 2, 3, 10, 15, 19, 29, 30; Oct 3, 4, 7, 11.  
Total No. of visits *43*.

Is the approved plan of main boiler forwarded herewith? *Yes*  
" " " *Auxy. Donkey* " " *S/S NAPLES MARM* Rpt No. 2587.

Dates of Examination of principal parts—Cylinders *1-8-19* Slides *29-8-19* Covers *21-8-19* Pistons *21-8-19* Rods *28-8-19*  
Connecting rods *28-8-19* Crank shaft *9-8-19* Thrust shaft *9-8-19* Tunnel shafts *22-8-19* Screw shaft *13-8-19* Propeller *21-8-19*  
Stern tube *19-8-19* Steam pipes tested *10-9-19* Engine and boiler seatings *8-9-19* Engines holding down bolts *1-10-19*  
Completion of pumping arrangements *1-10-19* Boilers fixed *1-10-19* Engines tried under steam *6-10-19*  
Completion of fitting sea connections *27-8-19* Stern tube *21-8-19* Screw shaft and propeller *25-8-19*  
Main boiler safety valves adjusted *3-9-19* Thickness of adjusting washers *Locknuts (Sealed by Japanese Gov. Ins)*  
Material of Crank shaft *Steel* Identification Mark on Do. *9-8-19* Material of Thrust shaft *Steel* Identification Mark on Do. *9-8-19*  
Material of Tunnel shafts *Steel* Identification Marks on Do. *22-8-19* Material of Screw shafts *Steel* Identification Marks on Do. *PF 930*  
Material of Steam Pipes *Steel* Test pressure *600 lb. sq. in.*

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? If so, state name of vessel: *S.S. War Queen Rpt No 2009*  
*S.S. War Prince " " 2031*  
*S.S. Naples Marm " " 2587*  
*S.S. Port Said Marm " " 2589*  
*S.S. Scotland Marm " " 2632*

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

The Machinery of this vessel has been made + fitted under special Survey in accordance with the requirements of the Rules + the workmanship are good.

The vessel is eligible in my opinion for the notation **✠ L.M.C.**

It is submitted that this vessel is eligible for the notation **✠ L.M.C. 10.19. F.D.**

**2 S.B. & 1 Aux S.B.**

The amount of Entry Fee *Yes* 30.-  
Special *£* 735.-  
Auxiliary Boiler Fee included  
Travelling Expenses (if any) *Yes* 15.-

When applied for, *Oct 15th 1919*

When received, *Oct 20th 1919*

**Alexander Watt**

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 23 DEC. 1919

*+ L.M.C. 10.19*

*F.D.*



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