

REPORT ON MACHINERY.

No. 2622

Received at London Office

WED. 12 NOV. 1919

Date of writing Report

Sept 26th 1919

When handed in at Local Office

10

Port of

Kobe

No. in Survey held at
Reg. Book.

Kobe

Date, First Survey

Apr. 12th

Last Survey

Sept. 11th 1919

(Number of Visits)

39

on the Steel Single Screw Steamer "Cape Town Maru"

Gross 5863

Net 4263

Master

Built at

Kobe

By whom built

Kawasaki Dockyard Co., Ltd.

When built

Engines made at

Kobe

By whom made

Kawasaki Dockyard Co., Ltd.

when made

Boilers made at

do

By whom made

do

when made

Registered Horse Power

Owners

The Kawasaki Kisen Kaisha, Ltd.

Part 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 15.41

Material of

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

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

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

Bal. 10"x11"x12" Dup.

Weir's Feed 9 1/2"x7"x24" two

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

In Engine Room

Three 3 1/2"

3 1/2"

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

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

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

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

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 upr platform of Eng Room.

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel

Illinois Stl Co., Carnegie Stl Co., Am. Spiral Pipe Works.

2252x2+1132(Aux. Bln)

Total Heating Surface of Boilers=5636

Is Forced Draft fitted

Yes

No. and Description of Boilers

Working Pressure 200 lbs.

Tested by hydraulic pressure to

100 lbs.

Date of test

19-7-19

No. of Certificate

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

each boiler

Two Spring loaded

Area of each valve

3 3/4 dia.

Pressure to which they are adjusted

205 lbs.

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Mean dia. of boilers

14'- 6"

Thickness

1 3/8"

Range of tensile strength

2678 to 32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

long. seams

Double riveted

Diameter of rivet holes in long. seams

1 1/16"

Pitch of rivets

9 1/8" x 4 1/16"

Per centages of strength of longitudinal joint

rivets 95.84

Working pressure of shell by rules

200 lbs.

Size of manhole in shell

Size of compensating ring (7 1/2" x flange)

1 5/16"

No. and Description of Furnaces in each boiler

3 Morrison's

Material

Steel

Length of plain part

top

Thickness of plates

crown 2 1/32

Description of longitudinal joint

Weld

Working pressure of furnace by the rules

221

Combustion chamber plates: Material

Steel

Thickness: Sides

1 1/16"

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"

Material of stays

Steel

Area at smallest part

2.10"

Area supported by each stay

8 1/2" x 9 3/8"

Material

Steel

Thickness

1 5/8"

Pitch of stays

19 3/4" x 20 1/2"

Area at smallest part

10"

Area supported by each stay

19 3/4" x 20 1/2"

Working pressure by rules

201 lbs.

Thickness

1 3/16"

Material of Lower back plate

Steel

Thickness

3 3/4"

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/16" x 4 5/16"

Material of tube plates

Steel

Pitch across wide water spaces

13 3/4" x 3 3/4"

Working pressures by rules

210 lbs.

Girders to Chamber tops: Material

Steel

thickness of girder at centre

10 3/4" x 13 1/16" (2)

Length as per rule

34 1/2"

Distance apart

9 3/8"

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

Is Easing Gear fitted

Diameter of Safety Valve

Pressure to which each is adjusted

IS A DONKEY BOILER FITTED? *Aux. Bln. 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 impeller shaft
Two Crank-pin " " Set junk ring bolts+nuts Crosshead+crankpin brasses
Two Crosshead " " One part Crank shaft. A. B. rod + nut.
Set Coupling " " Propeller shaft. ^{P 491}_{LLOYD'S}
Set Feed+Bilge pump valves Four blades+2 sets studs+nuts 3 safety valve springs Cond.
Assorted bolts+nuts+iron Slide valve spindle each size + Bln. tubes etc. etc.

The foregoing is a correct description,

Kawasaki Dockyard Co.

Per *J. Ota Kane*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } *1919*
Aug. 12, 14; May: 13, 16, 22; June 10, 13, 16, 17, 18, 19, 23, 24, 27, 30; July 2, 7, 10, 11, 15, 16, 23, 24, 25, 30, + 31
{ During erection on board vessel - - } *Aug. 1, 5, 6, 20, 21, 23, 30; Sept. 1, 5, 6, 8, 10 + 11.*
Total No. of visits *39.*

Is the approved plan of main boiler forwarded herewith *No. 5* smallest distant

Dates of Examination of principal parts—Cylinders *water test.* 16-6-19 Slides 21-8-19 Covers 6-8-19 Pistons 6-8-19 Rods 23-8-19
Connecting rods 20-8-19 Crank shaft 25-7-19 Thrust shaft 25-7-19 Tunnel shafts 16-7-19 Screw shaft 6-8-19 Propeller 31-7-19
Stern tube 5-8-19 Steam pipes tested 31-7-19 Engine and boiler seatings 13-8-19 Engines holding down bolts 1-9-19
Completion of pumping arrangements 1-9-19 Boilers fixed 1-9-19 Engines tried under steam *overhaul* 11-9-19
Completion of fitting sea connections 13-8-19 Stern tube 8-8-19 Screw shaft and propeller 12-8-19
Main boiler safety valves adjusted 6-9-19 Thickness of adjusting washers Locknuts - Caps sealed by Govt. Inspr.
Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S 25-7-19 AW R* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S 25-7-19 AW R*
Material of Tunnel shafts *Steel* Identification Marks on Do. *LLOYD'S 16-7-19 AW R* Material of Screw shafts *Steel* Identification Marks on Do. *LLOYD'S 16-7-19 AW 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. *✓*

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 Rpt. No 2009
S.S. War Prince " " 2031
S.S. Naples Maru " " 2587
S.S. Port Said Maru " " 2589
S.S. Karachi Maru " " 2599

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 + materials are good

The vessel is eligible in my opinion, for the notation *✱ LMC 9.19*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.19 F.D.

The amount of Entry Fee ... *Yen* : 30.- : When applied for,
Special ... *£* : 435.- : 18th Sept. 1919
Auxiliary Boiler Fee included : - :
Travelling Expenses (if any) *Yen* : 15.- : 22nd Sept. 1919

Alexander Watt
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

+ LMC 9.19 F.D.



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