

## REPORT ON MACHINERY.

No. 2367

Received at London Office

Date of writing Report 17 Nov 1918 When handed in at Local Office

Port of Kobe

WED. 5 FEB. 1919

No. in Survey held at  
Reg. Book.

Kobe

Date, First Survey 19 Feb

Last Survey 4 Nov 1918

on the

Single Screw Steel Strmt. "Kifuku Maru"

(Number of Visits

Gross 5852 62

Master

Built at

Kobe

By whom built

The Kawasaki Dock Co. Ltd.

Tons

When built 1918

Engines made at

Kobe

By whom made

The Kawasaki Dock Co. Ltd.

when made

1918

Boilers made at

do

By whom made

do

when made

do

Registered Horse Power

Owners

The Kawasaki Dock Co. Ltd.

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

3

No. of Cranks

3

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

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' 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

9 1/2 x 26

collars

14 3/8

Dia. of screw

17' 6"

Pitch of Screw

19' 0"

No. of Blades

4

State whether moveable

Yes

Total surface

1000'

No. of Feed pumps

One

Diameter of ditto

5"

Stroke

24"

Can one be overhauled while the other is at work

Yes

Yes, with Win' 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 10-11-12 dupl.

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

In Engine Room

Three 3 1/2" &amp; one 3 1/2" b

Gen. Ser. 7 1/2" 5-6

In Holds, &amp;c.

Nos. 1, 3 &amp; 4 holds Two 3 1/2" to each

No. 2 hold, two 4"

No. of Bilge Injections

1

sizes

9"

Connected to condenser, or to circulating pump

Cir. p.

Is a separate Donkey Suction fitted in Engine room &amp; 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

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 Upper platform in Eng Room

BOILERS, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Worth Bros. Sawada S. Wks.

Alan Ward S. Co.

4609 + 1132 for Aus. Bldg.

Illenon S. Co. Leeds Forge

Carnegie S. Co. (Leeds)

Total Heating Surface of Boilers

5741

Is Forced Draft fitted

Yes

No. and Description of Boilers

Two S. S.

1 Aus S. S.

2SB7 1AUXSB

Working Pressure

200 lbs

Tested by hydraulic pressure to

400 lbs

Date of test

2nd 8 Aug 1918

No. of Certificate

LLOYD'S TEST

400 LBS

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 to

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

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

1 5/16"

Range of tensile strength

29 to 32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

N. Riv.

long. seams

Drut. Skp

Diameter of rivet holes in long. seams

1 3/8"

Pitch of rivets

8 3/4" x 4 3/8"

Lap of plates or width of butt straps

1' 7 5/8" x 1 1/4"

Per centages of strength of longitudinal joint

rivets

95.8

Working pressure of shell by rules

209 lbs

Size of manhole in shell

16' 12"

Size of compensating ring

(7 1/2" + flange) 1 3/8"

No. and Description of Furnaces in each boiler

Three Morrison's

Material

Steel

Outside diameter

48 1/4"

Length of plain part

top

Thickness of plates

crown

2 1/32"

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

1 1/16"

Back

1 1/16"

Top

1 1/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

8 5/8" x 8 1/2"

Back

9' 8 1/2"

Top

9 3/8" x 8 1/2"

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 sq ft

Area supported by each stay

9 3/8" x 8 1/2"

Working pressure by rules

230 lbs

End plates in steam space:

Material

Steel

Thickness

1 5/16"

Pitch of stays

19 3/4" x 20 1/2"

How are stays secured

Drut. nut

Working pressure by rules

201 lbs

Material of stays

Steel

Area at smallest part

10 sq ft

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

Thickness

1"

Material of Lower back plate

Steel

Thickness

1"

Greatest pitch of stays

13 1/2" at wide

Working pressure of plate by rules

200 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 7/8" x 4 5/16"

Material of tube plates

Steel

Thickness: Front

1"

Back

1 3/16"

Mean pitch of stays

8 3/4"

Pitch across wide water spaces

13 3/4"

Working pressures by rules

200 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 3/4" x 3 3/4"

Length as per rule

34 1/2"

Distance apart

9 3/8"

Number and pitch of stays in each

3 @ 8 1/2"

Working pressure by rules

218 lbs

Steam dome: description of joint to shell

Yes

% 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

Lloyd's Register

Date of Test



IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? Yes for the

SPARE GEAR. State the articles supplied:—

Four main bearing bolts & nuts  
Two crank pin do do  
Two crosshead do do  
Set coupling do do  
Set feed pump & bilge pump valves  
Assorted bolts & nuts & iron

Set packing rings & springs for each  
Set joint ring bolts & nuts  
On port crank shaft. Propeller  
Four blades & two sets studs & nuts  
Slide valve spindle each size  
Centrifugal impeller & shaft.  
Crosshead & cr. pin trusses. A.P.N.  
3 Safety valve springs. Condenser

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.

Per

J. Masajima

Secretary.

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- 19<sup>th</sup> July to September 1918  
During erection on board vessel -- September to 4<sup>th</sup> Nov. 1918  
Total No. of visits Continuous attendance.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 19/2/18, 13/3/18, 26/4/18 tested. Slides 24/5/18 Covers 26/4/18 Pistons 21/5/18 Rods 12/4/18  
Connecting rods 23/5/18 Crank shaft 5/6/18 etc Thrust shaft 2/5/18 etc Tunnel shafts 30/5/18 etc Screw shaft 28/9/18 Propeller 3/10/18  
Stern tube 14/9/18 Steam pipes tested 3/10/18, 23/10/18, 9/11/18 Engine and boiler seatings 10/10/18 Engines holding down bolts 25/10/18  
Completion of pumping arrangements 22/10/18 Boilers fixed 22/10/18 Engines tried under steam 2/11/18. Marked  
Completion of fitting sea connections 14/10/18 Stern tube 25/9/18 Screw shaft and propeller 3/10/18  
Main boiler safety valves adjusted 29/10/18 Thickness of adjusting washers Port Bl. F. 1/2" A. 3/8" Star Bl. F. 5/8" A. 3/8" No. B. A. 3/8" Top 7"  
Material of Crank shaft Steel Identification Mark on Do. Lloyd's 2-8-18 Material of Thrust shaft Steel Identification Mark on Do. Lloyd's 2-8-18  
Material of Tunnel shafts Steel Identification Marks on Do. Lloyd's 5/6/18, 21/5/18, 26/5/18, 30/5/18. Material of Screw shafts Steel Identification Marks on Do. Lloyd's 5/6/18, 21/5/18, 26/5/18, 30/5/18.  
Material of Steam Pipes Steel Test pressure 600 lb. ✓

Is an installation fitted for burning oil fuel No

Is the flash point of the oil to be used over 150°F. ✓ Space

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

"War Lucan"

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

The machinery has been made & fitted under Special Survey, in accordance with the requirements of the Rules, & the materials & workmanship have been found good.

The vessel is in my opinion eligible for the record + L.M.C. 11. 1918

It is submitted that  
this vessel is eligible for  
THE RECORD + L.M.C. 11-18. F.D.

J.W.D. J.K.  
6/2/19

A. L. Jones

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... 400 30  
Special ... 750 750  
Donkey Boiler Fee ... 400 400  
Travelling Expenses (if any) 400 15  
When applied for, 7 Nov. 1918  
When received, 11 Nov. 1918

Committee's Minute

FRI. 7 FEB. 1919

MACHINERY CERTIFICATE

WRITTEN.

Assigned

+ L.M.C. 11. 18. J.D.



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Foundation