

Rpt. 4.

## REPORT ON MACHINERY.

No. 2226

Received at London Office

Date of writing Report

March 25<sup>th</sup> 18.

When handed in at Local Office

19

Port of Kobe.

No. in Survey held at

Imoshima

Date, First Survey

November 5<sup>th</sup>

Last Survey

February 19<sup>th</sup> 1918.

Reg. Book.

on the Single Screw Steel Steamer "Genzan Maru"

(Number of Visits)

13.

Gross

3179.21.

Tons

Net

Master

S. Sasaki.

Built at

Imoshima

By whom built

The Osaka Iron Works Ltd

When built

1918

Engines made at

Imoshima

By whom made

The Osaka Iron Works Ltd

when made

1918.

Boilers made at

Osaka

By whom made

The Osaka Iron Works Ltd.

when made

1918.

Registered Horse Power

Owners

Yamamoto Kisen Kabushiki Kaisha, Port belonging to Naha (Imoshima)

Nom. Horse Power as per Section 28

288.

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

22, 37, 61.

Length of Stroke

42.

Revs. per minute

70

Dia. of Screw shaft

as per rule 12.8

Material of screw shaft

Steel

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

Yes.

Is the after end of the liner made water tight

in the propeller boss

Yes.

If the liner is in more than one length are the joints burned

No

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

Yes

If two

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

Yes

Length of stern bush

4'-8 3/4".

Dia. of Tunnel shaft

as per rule 11.2

Dia. of Crank shaft journals

as per rule 11.77

Dia. of Crank pin

12.

Size of Crank webs

7 3/8 x 23

Dia. of thrust shaft under

collars

12"

Dia. of screw

16'-0"

Pitch of Screw

16'-0"

No. of Blades

4

State whether movable

No

Total surface

73 1/2 sq. ft.

No. of Feed pumps

Two

Diameter of ditto

3 1/4"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

Two

Diameter of ditto

3 1/4"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

Two

Sizes of Pumps

9.5 p. 4 x 6 x 6.

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

In Engine Room

1 @ 4"

In tunnel well

1 @ 2 1/2"

In Holds, &amp;c.

Two @ 3" in each hold.

No. of Bilge Injections

1 size 4"

Connected to condenser, or to circulating pump

Circ. Pp.

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

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

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 floor

Yes.

worked from

Upper framing in Eng room

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

S.)

Manufacturers of Steel

Imperial Japan Ste

Steel Works.

Total Heating Surface of Boilers

3824 sq. ft.

Is Forced Draft fitted

Yes.

No. and Description of Boilers

Two single ended.

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 lbs.

Date of test

30<sup>th</sup> Jan'y 18.

No. of Certificate

LLOYD'S REG. TEST. 360 LBS. 30.1.18.

Can each boiler be worked separately

Yes.

Area of fire grate in each boiler

45 sq. ft.

No. and Description of Safety Valves to

each boiler

Two Spring loaded

Area of each valve

3 1/4" dia.

Pressure to which they are adjusted

180 lbs.

Are they fitted with easing gear

Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork

about 12"

Mean dia. of boilers

13'-8 3/16"

Length

11'-6"

Material of shell plates

Steel

Thickness

1 3/8"

Range of tensile strength

28 3/4 - 32

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

DRL.

long. seams

TRDBS.

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

8 1/8"

Lap of plates or width of butt straps

17 3/4"

Per centages of strength of longitudinal joint

rivets 92.7

plate 85.3

Working pressure of shell by rules

180 lbs.

Size of manhole in shell

12" x 16"

Size of compensating ring

Flanged.

No. and Description of Furnaces in each boiler

3 Brighton

Material

Steel

Outside diameter

40.25"

Length of plain part

top

bottom

Thickness of plates

crown 1/2"

Description of longitudinal joint

Weld.

No. of strengthening rings

-

Working pressure of furnace by the rules

187 lbs.

Combustion chamber plates: Material

Steel

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

7/8"

Pitch of stays to ditto: Sides

9.5 mean

Back

9.3 mean

Top

9.75.

If stays are fitted with nuts or riveted heads

nuts.

Working pressure by rules

210

End plates in steam space:

Material of stays

Steel

Area at smallest part

2.10 sq. ft.

Area supported by each stay

90 sq. ft.

Working pressure by rules

180

Material of stays

Steel

Material

Steel

Thickness

1 3/8"

Pitch of stays

25" x 19"

How are stays secured

DN &amp; N.

Working pressure by rules

180

Material of Front plates at bottom

Steel

Area at smallest part

10.12

Area supported by each stay

47500

Working pressure by rules

180

Material of Front plates at bottom

Steel

Thickness

1"

Material of Lower back plate

Steel

Thickness

1 1/8"

Greatest pitch of stays

14"

Working pressure of plate by rules

180.

Diameter of tubes

3"

Pitch of tubes

4.3 mean

Material of tube plates

Steel

Thickness: Front

1"

Back

1 1/8"

Mean pitch of stays

10 1/2"

Pitch across wide water spaces

14"

Working pressures by rules

180 lbs.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

9 1/2" x 1 7/8"

Length as per rule

32"

Distance apart

32"

Number and pitch of stays in each

2 @ 9"

Working pressure by rules

202 lbs.

Steam dome: description of joint to shell

-

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

-

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

-

Is Easing Gear fitted

-

Pressure to which each is adjusted

-

Tested by Hydraulic Pressure to

-

Date of Test

-

Diameter of Safety Valve

-

-

-



IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 Bottom end bolts and nuts. ✓ One set of piston springs. ✓  
2 Main bearing bolts and nuts. ✓ One set of connecting rod & crank pin brasses. ✓  
1 set Coupling bolts and nuts. ✓ One Air pump rod. ✓  
1 set of In and Out pump valves & seats. ✓ One set of air and circulating pump valves. ✓  
Spare valve spindle for HP, IP and LP valves. ✓ One circulating pump rod. ✓  
2 Eccentric rods and straps. ✓ Assorted bolts & nuts of various sizes of iron. ✓  
2 Connecting rod top end bolts and nuts. ✓ Propeller. ✓  
The foregoing is a correct description.

*Y. K. Pakaki.*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - November 5<sup>th</sup>, 14<sup>th</sup>, 19<sup>th</sup>, 29<sup>th</sup> Dec 4<sup>th</sup>, 7<sup>th</sup>, 17<sup>th</sup> Jan 5<sup>th</sup>, 14<sup>th</sup>, 23<sup>rd</sup> Feb 3<sup>rd</sup>  
During erection on board vessel - - - February 9<sup>th</sup>, 19<sup>th</sup>  
Total No. of visits 13.

Is the approved plan of main boiler forwarded herewith *Yes.*

Dates of Examination of principal parts—Cylinders *Nov 19<sup>th</sup>* Slides *Nov 19<sup>th</sup>* Covers *Nov 19<sup>th</sup>* Pistons *Dec 4<sup>th</sup>* Rods *Dec 4<sup>th</sup>*  
Connecting rods *Dec 4<sup>th</sup>* Crank shaft *Jan 14<sup>th</sup>* Thrust shaft *Nov 24<sup>th</sup>* Tunnel shafts *Jan 23<sup>rd</sup>* Screw shaft *Nov 24<sup>th</sup>* Propeller *Feb 3<sup>rd</sup>*  
Stern tube *Feb 3<sup>rd</sup>* Steam pipes tested *Feb 10<sup>th</sup>* Engine and boiler seatings *Feb 9<sup>th</sup>* Engines holding down bolts *Feb 9<sup>th</sup>*  
Completion of pumping arrangements *Feb 19<sup>th</sup>* Boilers fixed *Feb 9<sup>th</sup>* Engines tried under steam *Feb 23<sup>rd</sup>*  
Completion of fitting sea connections *Feb 19<sup>th</sup>* Stern tube *Feb 3<sup>rd</sup>* Screw shaft and propeller *Feb 3<sup>rd</sup>*  
Main boiler safety valves adjusted *Feb 19<sup>th</sup>* Thickness of adjusting washers *Locke nuts.*  
Material of Crank shaft *Steel* Identification Mark on Do. *ALLOY 26.12.17* Material of Thrust shaft *Steel* Identification Mark on Do. *ALLOY 26.12.17*  
Material of Tunnel shafts *Steel* Identification Marks on Do. *ALLOY 26.12.17* Material of Screw shafts *Steel* Identification Marks on Do. *ALLOY 26.12.17*  
Material of Steam Pipes *Steel* ✓ Test pressure 360 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 *Yes.*

Is this machinery duplicate of a previous case *Yes.* If so, state name of vessel *"Pekin Maru," "Jensho Maru," "Yulci Maru," "Sikkon Maru," "Meichi"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been made and fitted under special survey in accordance with the requirements of the Rules and the materials and workmanship have been found good. The machinery is eligible in my opinion for the record of + L.M.C. 2.18.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 2.18. F.D.

The amount of Entry Fee ... *Upn 20.00*  
Special ... *516.00*  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, *Feb 26 1918*  
When received, *Mar 4 1918*

Committee's Minute

FRI. 14 JUN. 1918

Assigned

*+ L.M.C. 2.18 F.D.*

MACHINERY CERTIFICATE  
WRITTEN.

*R. P. Patchell*  
Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register  
Foundation