

REPORT ON MACHINERY.

No. 3310.

Date of writing Report 12 April 24 When handed in at Local Office

Received at London Office

MON. 26 MAY. 1924

No. in Survey held at
Reg. Book.

Tokyo

Port of

Yokohama

Date, First Survey

Last Survey

14 Feb 1924

on the

Ste. Crew Steamer

Pukki Maru

(Number of Visits 26)

Master

Built at

Tokyo

By whom built

Shikawajima Shipbldg & Engng Coy.

Tons

Gross 5699.36

Engines made at

Shikawajima

By whom made

Shikawajima Shipbldg & Engng Coy.

When built

1924

Boilers made at

do

By whom made

do

when made

1924

Registered Horse Power

Owners

Hashimoto S. S. Coy.

Port belonging to

Kobe

Nom. Horse Power as per Section 28

513

512.7

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

One Vert triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

26.43 1/2

Length of Stroke

48

Revs. per minute

88

Dia. of Screw shaft

as per rule

14

Material of

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

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

Yes

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

17' 5"

Dia. of Tunnel shaft

as per rule 13.53

Dia. of Crank shaft journals

as per rule 14.2

Dia. of Crank pin

14 3/4

Size of Crank webs

57" x 9 1/2"

Dia. of thrust shaft under

collars

Dia. of screw

17-9"

Pitch of Screw

19-0"

No. of Blades

4

State whether moveable

Total surface

99 sq ft

No. of Feed pumps

2

Diameter of ditto

4 1/2"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

SIZES OF PUMPS

7' x 5' x 7' & 9' x 12' x 10'

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

In Engine Room

4 - 3 1/2" dia

In Holds, &c.

10 @ 3 1/2" dia

No. of Bilge Injections

1

sizes

9"

Connected to condenser to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

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

Yes

Are they Valves or Cocks

Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

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

How are they protected

Yes

What pipes are carried through the bunkers

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

E. R. Top platform

OILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

7376.4

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Single Ended

Working Pressure

200 lbs

Tested by hydraulic pressure to

400 lbs

Date of test

Aug 1923

No. of Certificate

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

58.2

No. and Description of Safety Valves to

each boiler

2. Spring loaded

Area of each valve

11.045

Pressure to which they are adjusted

200 lbs

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

14'-3"

Length

11'-6"

Material of shell plates

Steel

Thickness

13 1/2"

Range of tensile strength

28-32

Are the shell plates welded or flanged

Long. seams

TRABS

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

10"

Lap of plates or width of butt straps

22"

Descrip. of riveting: cir. seams

DR

Per centages of strength of longitudinal joint

93.5%

Working pressure of shell by rules

217

Size of compensating ring

No. and Description of Furnaces in each boiler

3 Morrison

Material

Steel

Outside diameter

3'-8 3/8"

Length of plain part

top

bottom

Thickness of plates

crown

5"

Description of longitudinal joint

Working pressure of furnace by the rules

218

Combustion chamber plates: Material

Steel

Thickness: Sides

11/16"

Back

11/16"

Top

11/16"

Bottom

15/16"

Working pressure by rules

228

Pitch of stays to ditto: Sides

10 1/2" x 7 1/2"

Back

8 1/2" x 8 1/2"

Top

9 1/4" x 8"

If stays are fitted with nuts or riveted heads

Nuts

Material of stays

Steel

Area at smallest part

20"

Area supported by each stay

78.8

Material of stays

Steel

Thickness

1 3/4"

Pitch of stays

1'-7" x 1 1/4"

How are stays secured

DN & W

Working pressure by rules

207

Material of stays

Steel

Area at smallest part

7.67

Thickness

3/4"

Material of Lower back plate

Steel

Thickness

3/4"

Greatest pitch of stays

9 1/4"

Working pressure of plate by rules

312

Diameter of tubes

3" Ex

Pitch of tubes

4 1/4" x 4 1/8"

Material of tube plates

Steel

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

4 1/4"

Working pressures by rules

225

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

Working pressure by rules

306

Steam dome: description of joint to shell

%

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

How stayed

Working pressure of shell by rules

Crown plates

Thickness

Type

Date of Test

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

Pressure to which each is adjusted

Is Easing Gear fitted

SUPERHEATER.

Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Diameter of Safety Valve

Lloyd's Register

Foundation

W649-0119

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— One set of piston packing rings. One slide valve spindle. One set eccentric rods. 11 joint ring bolts. Connecting rod top & bottom end bolts. Set of main bearing brasses. Main bearing bolts & nuts. 33 Condenser tubes. 59 Condenser flanges. 1 Air pump rod. 2 set air pump valves. 1 impeller. 1 impeller shaft. Feed pump valve seat. Feed check valve & spindle. 1 set bilge pump valves & seal. Safety valves springs 3. 58 fire bars. 12 water gauge glasses. 2 tube expanders. Tube stoppers 2. Steel plate & bars assorted. Assorted bolts & nuts. 1 set. Coupling bolts.

The foregoing is a correct description,

K. Sack's

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } 1922. June 28 Oct 9. Nov 14. 16 Dec 22. 1923 Jan 23
 { During erection on board vessel --- } March 16. 29. April 12. 17. 24. May 2. 24. 29. June 14. July 1
 Total No. of visits { Nov 14. 15. 16 Dec 8. 1924. Jan 8. 11. 7. 29 Feb 4. 17. 24. 26. Visits. } Is the approved plan of main boiler forwarded herewith Yes.

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓
 Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓
 Stern tube ✓ Steam pipes tested ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓
 Completion of pumping arrangements 4th Febry Boilers fixed ✓ Engines tried under steam 4th Febry
 Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓
 Main boiler safety valves adjusted 29th Janry. Thickness of adjusting washers ✓
 Material of Crank shaft Steel Identification Mark on Do. Material of Thrust shaft Steel Identification Mark on Do.
 Material of Tunnel shafts Steel Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do.
 Material of Steam Pipes Steel ✓ Test pressure 400 lb 600 lb?
 Is an installation fitted for burning oil fuel ✓ 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 Ishikawajima No 330 Kori.

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

The machinery of this vessel has been built in accordance with the requirements of the Rules and the materials and workmanship have been found good. The machinery is eligible in my opinion to have the record of +2 MC 2. 24.

It is submitted that this vessel is eligible for THE RECORD. + LMC 2.24. FD. CL.

The amount of Entry Fee ... £ 60. When applied for. 15th April 24.
 Special ... £ 15.10.
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) £ 78. When received. 24.

Committee's Minute

Assigned

TUE JUN 3 1924

+ LMC 2.24

F.D. C.L.

Engineer Surveyor to Lloyd's Register of Shipping.



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