

REPORT ON MACHINERY.

No. 2350

Received at London Office

MON. 13 JAN. 1919

Writing Report

10

When handed in at Local Office

10

Port of

Kobe.

Survey held at

Osaka

Date, First Survey 25 Jan

Last Survey 20 Sept 1918

Book.

on the

Steel Sloop S.S. Shinfuku Maru

(Number of Visits 14

ter

Built at

Osaka

By whom built

Fujinagata Dockyard Co

Tons

Gross 2204.9

Net 1298.7

When built

1918

ines made at

Osaka

By whom made

Fujinagata Dockyard Co

when made

1918

ers made at

do

By whom made

do

when made

do

istered Horse Power

Owners

Nishimoto Kisen Kaisha

Port belonging to

Nishinomiyagi

Horse Power as per Section 28

189

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

FINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

No. of Cylinders

18½:30½:51½

Length of Stroke

36

Revs. per minute

80

Dia. of Screw shaft

as per rule 11.4

Material of

Steel

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

no

Is the after end of the liner made water tight

the propeller boss

yes

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

If two

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

Lapped near liners

Length of stern bush

3' 8½"

Dia. of Tunnel shaft

as per rule 9.46

Dia. of Crank shaft journals

as per rule 9.93

Dia. of Crank pin

10½

Size of Crank webs

6½x18

Dia. of thrust shaft under

bars

10½"

Dia. of screw

13' 6"

Pitch of Screw

16' 6"

No. of Blades

4

State whether moveable

no

Total surface

57.3

No. of Feed pumps

2

Diameter of ditto

3½"

Stroke

16"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3½"

Stroke

16"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

Two

Sizes of Pumps

Bal. 6½x8x9 dupl.

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

Gen. serv. 7.4x2.6 do

In Holds, &c.

Two 2¾ to each hold.

Engine Room

One 3" & two 2¾"

Small 10x4½x6 dupl.

No. of Bilge Injections

1

sizes

5"

Connected to condenser, or to circulating pump

C.C.P.

Is a separate Donkey Suction fitted in Engine room & size

yes 3"

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

Large 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 E. Rm.

OILERS, &c.—(Letter for record S)

Manufacturers of Steel

Carnegie Steel Co. & Leeds Forge

Total Heating Surface of Boilers

3195

Is Forced Draft fitted

no

No. and Description of Boilers

Two Single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

2 Sept. 1918

No. of Certificate

LLOYD'S TEST 360 lbs. hyd.

Can each boiler be worked separately

yes

Area of fire grate in each boiler

50

No. and Description of Safety Valves

Each boiler

Two Direct Spring

Area of each valve

2½ dia

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

8" to bunk. pl.

Mean dia. of boilers

12' 6"

Length

10' 6"

Material of shell plates

Steel

Thickness

1½"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

W. Riv

long. seams

Doub. Straps

Diameter of rivet holes in long. seams

1½"

Pitch of rivets

8½x14½

Gap of plates or width of butt straps

17½x7½

Per centages of strength of longitudinal joint

84.2

Working pressure of shell by rules

180 lbs

Size of manhole in shell

12' x 16"

No. and Description of Furnaces in each boiler

3 Morrison's

Material Steel

Size of compensating ring

32' x 36' x 1½"

No. and Description of Furnaces in each boiler

3 Morrison's

Material Steel

Outside diameter

40½"

Length of plain part

top

bottom

Working pressure of furnace by the rules

18 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

5/8

Back

5/8

Top

Bottom

Pitch of stays to ditto: Sides

7½x9"

Back

7½x7½"

Top

8½x8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

197

Material of stays

Steel

Area at smallest part

1.77

Area supported by each stay

67½"

Working pressure by rules

210 lbs

End plates in steam space:

Material

Steel

Thickness

1"

Pitch of stays

16' x 15'

How are stays secured

Doub. nuts

Working pressure by rules

213 lbs

Area at smallest part

5.9

Area supported by each stay

16' x 15'

Working pressure by rules

256 lbs

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of Lower back plate

Steel

Thickness

3/4"

Greatest pitch of stays

14½' at wide

Working pressure of plate by rules

180 lbs

Diameter of tubes

3½"

Pitch of tubes

4 3/8"

Material of tube plates

Steel

Thickness: Front

3/4"

Back

3/4"

Pitch across wide water spaces

14 3/4"

Working pressures by rules

180 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

7 3/4' x 1 3/4'

Length as per rule

29 1/2"

Distance apart

8"

Number and pitch of stays in each

2 @ 8' 8 1/2"

Working pressure by rules

216 lbs

Steam dome: description of joint to shell

Flanged & doub. riv

% of strength of joint

67 1/2%

Diameter

3' x 4"

Thickness of shell plates

5/8"

Material

Steel

Description of longitudinal joint

W. Riv. lap

Diam. of rivet holes

1 1/16"

Pitch of rivets

3 1/4"

Working pressure of shell by rules

276 lbs

Crown plates

Thickness

5/8"

How stayed

Spherical

4' 5" rad.

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

IS A DONKEY BOILER FITTED?

no ✓

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two main bearing bolts. ✓

Two crank pin bolts & set braces. ✓

Four crosshead bolts. ✓

Two sets coupling bolts. ✓

Two eccentric rods. ✓

One valve rod. ✓

Air & circulating pump rods. ✓

Feed & bilge pump valves & seats. ✓

Packing rings each piston. ✓

Safety valve springs. ✓

Assorted bolts & nuts. ✓

Iron various sizes. ✓

The foregoing is a correct description,

Fujinagata Dock Yard.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 25 Jan. 19 Feb. 19 Mar. 26 Mar. 24. 26 Apr & 27 July before request for class was made. 30 July. 16 Aug. 22 Aug. 2. 13. 16. 20 Sep. 19. During erection on board vessel -- Total No. of visits 14

Is the approved plan of main boiler forwarded herewith

Yes

" " " donkey " " "

None

Dates of Examination of principal parts—Cylinders 30 July Slides 30 July Covers 30 July Pistons 30 July Rods 24 Apr

Connecting rods 24 Apr. Crank shaft 26 Apr. Thrust shaft 30 July Tunnel shafts 30 July Screw shaft 22 Aug Propeller 22 Aug

Stern tube 22 Aug Steam pipes tested 16 Sept. Engine and boiler seatings 22 Aug Engines holding down bolts 16 Sept.

Completion of pumping arrangements 16 Sept. Boilers fixed 13 Sept. Engines tried under steam 20 Sept.

Completion of fitting sea connections 16 Sept. Stern tube 13 Sept. Screw shaft and propeller 16 Sept.

Main boiler safety valves adjusted 20 Sept. Thickness of adjusting washers Locknuts

Material of Crank shaft Steel Identification Mark on Do. Jap. Gov. Material of Thrust shaft Steel Identification Mark on Do. Jap. Gov.

Material of Tunnel shafts Steel Identification Marks on Do. Jap. Gov. Material of Screw shafts Steel Identification Marks on Do. do

Material of Steam Pipes Solid drawn Copper 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

Is this machinery duplicate of a previous case Yes. ✓ If so, state name of vessel Yoro Maru, Chopin Maru, Sachin Yoro Maru II. by same builders.

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

The survey was requested after all parts of the engine had been machined & were nearly completed. The boilers have been surveyed during construction. The engine had been seen from time to time, in surveying other work, before the survey for class was requested. The workmanship & dimensions have been found to accord with the plans & the Society's Rules. Compensation for the weakening of the boiler shells by the dome connections has been fitted as in the sister vessels. The boiler steel is all certified as having been tested by the Society's Surveyors. The steel shafting & rods are certified as tested by the Government Surveyors to the same limits as required by this Society.

The machinery is in my opinion eligible for the record LMC 9.18.

It is submitted that this vessel is eligible for THE RECORD. LMC 9.18.

The amount of Entry Fee ... 20 : When applied for, Special ... 4.00 : 30 Sep 1918 Donkey Boiler Fee ... : : When received, Travelling Expenses (if any) ... 10 : 1st Oct. 1918

Committee's Minute

Assigned

FRI. 17 JAN. 1919

LMC 9.18.

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation