

REPORT ON MACHINERY.

Received at London Office

Date of writing Report

10

When handed in at Local Office

10

Port of Kobe

o. in Survey held at Kobe + On, Harima

Date, First Survey July 2nd

Last Survey Nov. 24th 1919

Reg. Book.

on the steel Single Screw Steamer

"SHUNKO MARU"

Continuous attendance during building

(Number of Visits)

Tons

Gross 6786.01

Net 5077.27

Master N. Yamagata

Built at On, Harima

By whom built Harima Dockyard Co.

When built 1919

Engines made at

Kobe

By whom made

Kobe Steel Works Ltd.

when made 1919

Boilers made at

Kobe + Harima

By whom made

Port + Starbo Boilers made at Kobe Steel Wks.
Centre Boilers made by Harima Dockyard Co.

when made 1919

Registered Horse Power

Owners

Goko Shokai

Port belonging to Amagasaki

Com. Horse Power as per Section 28

575

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

27 : 45 : 75

Length of Stroke

51"

Revs. per minute

Dia. of Screw shaft

as per rule 15 1/4

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

Is 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

yes

If two

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

Length of stern bush

5'-8"

Dia. of Tunnel shaft

as per rule 13-67/14-22

Dia. of Crank shaft journals

as per rule 14-35 14-34"

Dia. of Crank pin

15"

Size of Crank webs

x 9 1/2

Dia. of thrust shaft under

collars

15"

Dia. of screw

18'-4"

Pitch of Screw

19'-8 1/2"

No. of Blades

4

State whether moveable

yes

Total surface

80 sq

No. of Feed pumps

2

Diameter of ditto

5

Stroke

25 1/2

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

5

Stroke

25 1/2

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

4

Sizes of Pumps

2 Feed Pps. 10 1/2 : 8 : 2 1/2
2 S.B. 7 x 5 x 7
Bal. Pp. 9 x 12 x 10

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

In Engine Room

2 @ 3 1/2

In Holds, &c. No. 1 Hold 2 @ 3 1/2 No. 2 2 @ 3 1/2

No. 3 2 @ 3 1/2

No. 4 2 @ 3 1/2

No. 5 2 @ 3 1/2

Tunnel 1 @ 3 1/2

No. of Bilge Injections

1

Sizes

8 3/4"

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

yes

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 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

yes

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 Top platform of Engine Room

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Illinois Steel Coy.

2 S.B. & 1 Aux S.B.

Total Heating Surface of Boilers

6418

Is Forced Draft fitted

yes

No. and Description of Boilers

Two Single ended

Working Pressure

200 lbs

Tested by hydraulic pressure to

400 lbs

Date of test

8th Sept.

No. of Certificate

LLOYD'S TEST

Can each boiler be worked separately

yes

Area of fire grate in each boiler

73.33 sq

No. and Description of Safety Valves to

each boiler

2 Spring loaded

Area of each valve

12.56"

Pressure to which they are adjusted

200 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

yes

Mean dia. of boilers

15'-9"

Length

12'-0"

Material of shell plates

Steel

Thickness

1 1/2"

Range of tensile strength

26.7-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D.R.L.

long. seams

T.R.D.B.S

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

10 1/2"

Lap of plates or width of butt straps

1'-10 1/4"

Per centages of strength of longitudinal joint

rivets 90.6
plate 85.1

Working pressure of shell by rules

207 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

2'-7 1/4" x 2'-11 1/4" x 1 1/2"

No. and Description of Furnaces in each boiler

4 Morrison

Material

Steel

Outside diameter

44 1/4"

Length of plain part

top

bottom

Thickness of plates

crown 5/8"

bottom

Description of longitudinal joint

Weld

No. of strengthening rings

yes

Working pressure of furnace by the rules

209 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

1 1/8"

Back

3/4"

Top

1 1/8"

Bottom

Pitch of stays to ditto: Sides

9" x 8"

Back

8 3/8" x 10 1/4"

Top

8" x 9"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

222 lbs

Material of stays

Steel

Area at smallest part

2.43

Area supported by each stay

85.8"

Working pressure by rules

254 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/4"

Pitch of stays

16 1/2" x 19"

How are stays secured

D.N.+W.

Working pressure by rules

234 lbs

Material of stays

Steel

Area at smallest part

7.068

Area supported by each stay

313.5"

Working pressure by rules

234 lbs

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

7/8"

Greatest pitch of stays

10 x 15"

Working pressure of plate by rules

211 lbs.

Diameter of tubes

If so, is a report now forwarded? *yes*

- 2 Connecting Rods top end bolts + nuts. ✓
- 2 Connecting Rod bottom end bolts + nuts. ✓
- 2 Main bearing bolts. ✓
- 1 Set of Coupling bolts. ✓
- 1 Set of Feed + Bilge pump valves. ✓
- 1 Set of Piston springs. ✓

Quantity of assorted bolts
 & nuts.
 Iron of various sizes.

correct description,
THE TEIKOKU STEAMSHIP CO., LTD.

Manufacturer.

Director

Dates of Survey while building	{	During progress of work in shops --	Continuous attendance July 9 th - Sept. 16 th
		During erection on board vessel --	Sept. 22, 25, 27, 30 th ; Oct. 3, 10, 21 st ; Nov. 1, 8, 18, 22, + 24 th 1919
		Total No. of visits	Continuous attendance while building. Is the approved plan of main boiler forwarded herewith 12 during erection

auxy
Donnan

Dates of Examination of principal parts—Cylinders 13-8-19 Slides 13-8-19 Covers 13-8-19 Pistons 13-8-19 Rods 23-1-19
 Connecting rods 9/6-19-29/8/19 Crank shaft 20-8-19 Thrust shaft 2-8-19 Tunnel shafts 27-8-19 Screw shaft 6-8-19 Propeller 26-1-19
 Stern tube _____ Steam pipes tested 24-10-19 Engine and boiler seatings 22nd Sept. Engines holding down bolts 30th Sept.
 Completion of pumping arrangements 8th Nov. 19 Boilers fixed 10th Oct. 1919 Engines tried under steam 15th Nov.
 Completion of fitting sea connections 8th Nov. 19 Stern tube 20th Oct. 1919 Screw shaft and propeller 30th Oct.
 Main boiler safety valves adjusted 15th Nov. 19 Thickness of adjusting washers _____ Lock nuts ✓
 Material of Crank shaft Steel Identification Mark on Do. LLOYDS 13-8-19 20-8-19 Material of Thrust shaft Steel Identification Mark on Do. R.O.B.
 Material of Tunnel shafts Steel Identification Marks on Do. R.O.B. 13-8-19 20-8-19 Material of Screw shafts Steel Identification Marks on Do. LLOYDS 13-8-19 20-8-19
 Material of Steam Pipes Steel and dates. 23/7/19, 23/7/19, 14/7/19, 12-7-19, 16-7-19, 2-8-19 + 27-8-19 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

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 and the materials and workmanship have been found good.

In our opinion the machinery is eligible for the Record of L.M.C. 11-19

It is submitted that
this vessel is eligible for

THE RECORD. T.L.M.C. 11-19. F.D.

2SB. & 1 Aux. SB.

25/2/20.

Two

The amount of Entry Fee	... <i>Yes</i> 30.-	When applied for,
Special	... £ 853.-	25 th Nov. 1949
Donkey Boiler Fee	... £	When received,
Travelling Expenses (if any)	...	29 - Nov. 1949

Committee's Minutes

Assigned

+ L. Mc. 11:19 F. D.

R. Batches W. Lawson
Engineer Surveyor to Lloyd's Register of Shipping

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Lloyd's Register
Foundation