

REPORT ON MACHINERY

No. 2418
JUL 21 1919

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of Kobe

No. in Survey held at Kobe + O Harima
Reg. Book.Date, First Survey 10th JulyLast Survey 7th March 1919

(Number of Visits)

on the Steel Single Screw Steamer "Yone Maru"

Gross 6780.00

Net 5056.08

Master

Built at O Harima

By whom built Harima Dockyard Company

When built 1919

Engines made at Kobe (Steel Works)

By whom made Kobe Steel Works

when made 1919

Boilers made at Kobe Steel Works

By whom made Kobe Steel Works

when made 1919

Registered Horse Power

Owners Tokoku Steamship Co Ltd

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

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 70

Dia. of Screw shaft

as per rule 15 1/4 15.45

as fitted 16

Material of screw shaft

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

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

Yes

Length of stern bush 11'-5 3/4"

Dia. of Tunnel shaft

as per rule 13.67 13.9

Dia. of Crank shaft journals

as per rule 14.35 14.6

as fitted 14 3/4

Dia. of Crank pin 15

Size of Crank webs 4'-6 1/2" 4.9

Dia. of thrust shaft under

collars 14 3/4

Dia. of screw 18'-6"

Pitch of Screw 18'-9"

No. of Blades 4

State whether moveable

Yes

Total surface 106.44 sq. ft.

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 Three

Sizes of Pumps

Ballast Pp. 9" 2" x 10"

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

In Engine Room 2 @ 3 1/2"

No 3 hold 2 @ 3 1/2"

No 4 hold 2 @ 3 1/2"

No 5 hold 2 @ 3 1/2"

1 @ 3 1/2" Tunnel bilge

No. of Bilge Injections 1

sizes 8 3/4"

Connected to condenser, or to circulating pump

Cripp

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 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

Yes

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

L.R. top platform

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Cambria Steel Co. North Brothers Co. The American Spiral Pipe Works Charles McNeil Co.

Total Heating Surface

Boilers 7974 sq. ft.

Is Forced Draft fitted

Yes

No. and Description of Boilers

Three Single Ended

Working Pressure

190 lbs.

Tested by hydraulic pressure to

380 lbs.

Date of test

24.4.19

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

64 sq. ft.

No. and Description of Safety Valves to

each boiler Two Spring loaded

Area of each valve

4"

Pressure to which they are adjusted

190 lbs.

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers 15'-9"

Length 11'-9"

Material of shell plates

Steel

Thickness 1 1/2"

Range of tensile strength 28 to 32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: air. seams

DRL

long. seams

TRDBS.

Diameter of rivet holes in long. seams

1 9/16"

Pitch of rivets

9 7/8"

Lap of plates or width of butt straps

20 3/8"

Per centages of strength of longitudinal joint

rivets 98

plate 83.7

Working pressure of shell by rules

244

Size of manhole in shell

16 x 12"

Size of compensating ring 3'-4" x 2'-6" x 1 1/2"

No. and Description of Furnaces in each boiler

Three Morrison

Material Steel

Outside diameter 4'-1 3/4"

Length of plain part

top

Thickness of plates

crown 3/8"

bottom 3/8"

Description of longitudinal joint

weld

No. of strengthening rings

Yes

Working pressure of furnace by the rules

202 lbs.

Combustion chamber plates: Material Steel

Thickness: Sides 21/32"

Back 23/32"

Top 21/32"

Bottom 1"

Pitch of stays to ditto: Sides 9 1/8 x 8 1/4"

Back 9 1/8 x 9"

Top 9 x 8 1/4"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

200 lbs.

Material of stays Steel

Area at smallest part 17982.10

Area supported by each stay 88.870

Working pressure by rules

212

End plates in steam space:

Material Steel

Thickness 1 1/4"

Pitch of stays

How are stays secured

DN + W.

Working pressure by rules

196

Material of stays Steel

Area at smallest part 7.50

Area supported by each stay

Working pressure by rules

208

Material of Front plates at bottom

Steel

Thickness 3/8"

Greatest pitch of stays

14 1/2"

Thickness 3/8"

Material of Lower back plate Steel

Thickness 7/8"

Working pressure of plate by rules

180 lbs.

Mean pitch of stays

9.26"

Diameter of tubes 3"

Pitch of tubes 4 1/4"

Material of tube plates Steel

Thickness: Front 3/32"

Back 7/8"

Girders to Chamber tops: Material Steel

Depth and

Pitch across wide water spaces 14"

Working pressures by rules

275

Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 1 1/2"

Length as per rule 34"

Distance apart

9"

Number and pitch of stays in each

3 @ 8 1/4"

% of strength of joint

Working pressure by rules 183

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

Date of Test

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

Is Easing Gear fitted

Diameter of Safety Valve

Pressure to which each is adjusted

Tested by Hydraulic Pressure to

Lloyd's Register

Foundation

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Rpt. 13.

RE

Port of

No. in on the
Reg. Book Built

Owners

Yard No. 11

DESCRIPTION OF

One dir
Speed

Capacity of Dyna

Where is Dynam

Position of Main

Positions of aux

viz. ✓

Crew

If cut outs are fi

circuits ✓

If vessel is wire

Are the cut outs

Are all cut outs

are perman

Are all switches

Total number of

A 141

B 3

C 64

D

E

Mas

If are lights,

Where are th

DESCRIPTION

Main cable can

Branch cables

Branch cables

Leads to lamp

Cargo light ca

Unless be

DESCRIPTION

Armo

in A

Joints in cab

spec

Are all the

made in

Are there a

How are th

pane

SPARE GEAR. State the articles supplied:—

- 2 Connecting rod lap end bolts & nuts.
2 Connecting rod bottom end bolts & nuts.
2 main bearing bolts & nuts.
1 set coupling bolts & nuts.
1 set of feed & bilge pump valves.
1 set of piston springs.

Quantity assorted bolts & nuts
None of various sizes.

The foregoing is a correct description,

M. Kimura, Superintendent Engineer of Kobe Steel Works
Kobe Steel Works Limited.



Manufacturer.

Dates of Survey while building { During progress of work in shops -- Continuous attendance at Kobe Steel Works. 1st May 18. to 17th Jan. 1919.
During erection on board vessel -- 3rd Jan. 14, 8th, 15th, 20th, 25th Feb. & 7th March 1919.
Total No. of visits Continuous attendance @ Kobe Steel Works Is the approved plan of main boiler forwarded herewith Yes.
and 7 visits during erection.

Dates of Examination of principal parts: Cylinders 2nd May Slides 2nd May Covers 2nd May Pistons 2nd May Rods 2nd May
Connecting rods 2nd May Crank shaft 2nd May Thrust shaft 2nd May Tunnel shafts 2nd May Screw shaft 2nd May Propeller 2nd May
Stern tube 2nd May Steam pipes tested 4th Feb. 19 Engine and boiler seatings Dec 21st 18. Engines holding down bolts Feb 15th.
Completion of pumping arrangements 20th Feb. 19. Boilers fixed Feb 15th. Engines tried under steam Feb 20th.
Completion of fitting sea connections Feb. 4th. Stern tube Feb. 4th. Screw shaft and propeller Feb 4th.
Main boiler safety valves adjusted 20th Feb. 19. Thickness of adjusting washers Lock nuts.
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 Copper Test pressure 400 lb.

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 S.S. Eastern Shore. Kobe rpt no 2

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.

In my opinion the Machinery is eligible for the Record of + LMC March 1919.

The amount of Entry Fee ... £ 30.00 When applied for.
Special ... £ 8.28.00 Mar 4 1919
Donkey Boiler Fee ... £ : : When received.
Travelling Expenses (if any) £ : : Mar 7 1919

Committee's Minute

FRI. 25 JUL. 1919

Assigned

+ LMC 3 19

F.D.

MACHINERY CERTIFICATE
WRITTEN.

R. P. Batchelor

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation