

Rpt. 4.

REPORT ON MACHINERY.

No. 2484.

Received at London Office

WED. 9 JUL. 1919

Date of writing Report 24th May, 1919 When handed in at Local Office

Port of Yokohama

No. in Survey held at Tokyo & Tsurumi

Date, First Survey Jan 10th

Last Survey 20th May, 1919

Reg. Book.

(Number of Visits 24)

on the S. S. "Kaikyu Maru"

Tons { Gross 8134
Net 5046

Master Built at Tsurumi

By whom built Asano Shipbuilding Co Ltd
(Yard No. 16)

When built 1919

Engines made at Kobe

By whom made Kubota Iron Works

when made 1919

Boilers made at Tokyo

By whom made Ishikawajima S. B & E Co Ltd.

when made 1919

Registered Horse Power

Owners

Katsuda Kisen Kaisha

Port belonging to Mitsugahama

Nom. Horse Power as per Section 28

703

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Material of

screw shaft

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

Is the after end of the liner made water tight

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

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

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

Length of stern bush

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps

2

Diameter of ditto

4

Stroke

24

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4

Stroke

24

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2 Woodeson

10 1/2 x 8 x 24

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

In Engine Room

3

-

3 1/2

1 B.D.

1 Bilge

9 x 12 x 10

In Holds, &c. No. 1- 2, 3 1/2", No. 2 - 2, 3 1/2", No. 3-

2, 3 1/2", Side bunkers

2

-

3 1/2"

No. 4 - 2, 3 1/2"

No. 5 - 2, 3 1/2"

tunnel well 1-3"

No. of Bilge Injections

2

sizes

7 1/2

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & 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

None

Are all connections with the sea direct on the skin of the ship

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

Yes

Are the Discharge Pipes above or below the deep water line

Yes

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

Forward bilges

How are they protected

Wood ceiling

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

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

Worth Bros

Total Heating Surface of Boilers

9835.2

Is Forced Draft fitted

Yes

No. and Description of Boilers

4 Multitubular

4 SB

Working Pressure

200

Tested by hydraulic pressure to

400

Date of test

17-4-19

No. of Certificate

43

2 off

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

58.289 ft

No. and Description of Safety Valves to

each boiler

2 Spring Loaded

Area of each valve

11.04 sq in

Pressure to which they are adjusted

205

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

22"

Mean dia. of boilers

14'-3"

Length

11'-6"

Material of shell plates

S

Thickness

1 1/2

Range of tensile strength

28-32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R.

long. seams

D.B.S.T.R.

Diameter of rivet holes in long. seams

1 1/2

Pitch of rivets

10

Lap of plates or width of butt straps

22

Per centages of strength of longitudinal joint

rivets 91.4

Working pressure of shell by rules

223

Size of manhole in shell

16 x 12

Size of compensating ring

36 1/2 x 32 1/2

No. and Description of Furnaces in each boiler

3 Deighton

Material

S

Outside diameter

3-10 1/4

Length of plain part

top

x

Thickness of plates

crown

bottom

Description of longitudinal joint

Weld

No. of strengthening rings

xx

Working pressure of furnace by the rules

217

Combustion chamber plates: Material

S

Thickness: Sides

45/64

Back

44/64

Top

45/64

Bottom

15/16

Pitch of stays to ditto: Sides

10 1/2 x 7 1/2

Back

8 1/2 x 8 1/2

Top

9 1/2 x 8

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

207

Material of stays

S

Area at smallest part

2-03

Area supported by each stay

83 sq in

Working pressure by rules

221

End plates in steam space:

Material

S

Thickness

1 3/16

Pitch of stays

18 1/2 x 16 1/2

How are stays secured

D. nuts

Working pressure by rules

214

Material of stays

S

Area at smallest part

7.7

Area supported by each stay

311 sq in

Working pressure by rules

249

Material of Front plates at bottom

S

Thickness

3/4

Material of Lower back plate

S

Thickness

3/4

Greatest pitch of stays

8.5

Working pressure of plate by rules

276

Diameter of tubes

3

Pitch of tubes

4 1/2 x 4 1/2

Material of tube plates

S

Thickness: Front

3/4

Back

3/4

Mean pitch of stays

8 3/8

Pitch across wide water spaces

13 1/2

Working pressures by rules

225

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

8 x 1 1/2

Length as per rule

30 3/4

Distance apart

8

Number and pitch of stays in each

2 x 9 1/4

Working pressure by rules

225

Steam dome: description of joint to shell

xx

% of strength of joint

Diameter

xx

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

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

W1341-0041

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? XX

SPARE GEAR. State the articles supplied:— One crank shaft, one propeller shaft, one propeller blade, two connecting rod top - end bolts and nuts, two connecting rod bottom - end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump valves, one of piston springs, a quantity of assorted bolts and nuts, iron of various sizes.

The foregoing is a correct description,

T. Uchida

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } Jany 10, 18, 25, Feby 12, 21, 24, March 3, 10, 17, 24, 31 April 4, 7, 14, 18
 { During erection on board vessel - - - } April 16, 23, 24, 28, May 8, 9, 13, 19, 20.
 Total No. of visits 24.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

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 3-5-19 Engine and boiler seatings 15-4-19 Engines holding down bolts 30-4-19
 Completion of pumping arrangements 13-5-19 Boilers fixed 24-4-19 Engines tried under steam 20-5-19
 Completion of fitting sea connections 15-4-19 Stern tube 15-4-19 Screw shaft and propeller 15-4-19
 Main boiler safety valves adjusted 19-5-19 Thickness of adjusting washers Jam nuts.
 Material of Crank shaft S Identification Mark on Do. Material of Thrust shaft S Identification Mark on Do.
 Material of Tunnel shafts S Identification Marks on Do. Material of Screw shafts S Identification Marks on Do.
 Material of Steam Pipes Steel 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 See below

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey in accordance with the approved plans and the Society's Rules, the materials and workmanship are good, the machinery has been satisfactorily tried under steam, and is in my opinion eligible for the record LMC

See Kobe Report No. 2485 for engines.

Duplicate vessels " Hakushika Maru " Reprt No. 2307,

" " " War Helmet " Report No. 2320,

" " " War Armour " Report No. 2328,

" " " War Lance " Report No. 2338,

" " " Aden " Report No. 2354,

" " " Capitaine Faure " Report No. 2363.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.19 FI

9.7.19.

The amount of Entry Fee ... £ : : When applied for, 21.5.19
 Special ... £ 560.00
 Donkey Boiler Fee ... £ : : When received, 24.5.19
 Travelling Expenses (if any) £ 10.50

Committee's Minute

Assigned

FRI JUL 18. 1919

+ LMC 5.19

F.D.

MACHINERY CERTIFICATE WRITTEN



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