

REPORT ON BOILERS.

No. 4784.

Received at London Office

8 APR 1925

Date of writing Report 3rd March 1925 When handed in at Local Office

19

Port of

Kobe

No. in Survey held at
Reg. Book.

Kobe

Date, First Survey

Oct 11th 1924

Last Survey

Feb 19th 1925

1925

on the Steel Motor Vessel "FLORIDA MARU"

(Number of Visits 14)

Gross 5832.87

Tons Net 3644.19

Built at Kobe

By whom built

Kawasaki Dockyard Co Ltd

Yard No. 484

When built 1925-2.

Engines made at

Glasgow (Clydebank)

By whom made

John Brown & Co Ltd

Engine No. 502 A.

When made 1925-2.

Boilers made at

Kobe

By whom made

Kawasaki Dockyard Co Ltd

Boiler No. 484

When made 1925-2.

Owners

Kawasaki Dockyard Co Ltd

Port belonging to

Kobe

VERTICAL DONKEY BOILER.

Made at Kobe

By whom made

Kawasaki Dockyard Co Ltd

Boiler No. 484

When made 1925

Where fixed

Low Eng. Rm.

Manufacturers of Steel

Kawasaki Fukui Steel Works

Total Heating Surface of Boiler

369.62 sq ft

Is forced draught fitted

No

Coal or Oil fired

Oil fired

No. and Description of Boilers

one Vertical Donkey Boiler (Cochran Type)

Working pressure

120 lbs

Tested by hydraulic pressure to

230 lbs

Date of test

6th November 1924

No. of Certificate

584

Area of Firegrate in each Boiler

oil fired

No. and Description of safety valves to each boiler

one 2" dia Swin, Spring loaded.

Area of each set of valves per boiler

per rule 4.102 sq ft

as fitted 6.28 sq ft

Pressure to which they are adjusted

125 lbs

Are they fitted with easing gear

Yes

State whether steam from main boilers can enter the donkey boiler

Yes

Smallest distance between boiler or uptake and

BULKHEAD

on woodwork

15"

Is oil fuel carried in the double bottom under boiler

No

Smallest distance between base of boiler and tank top plating

37"

Is the base of the boiler insulated

Yes

Largest internal dia. of boiler

72"

Height

13'-10 1/4"

Shell plates: Material

O.H. Steel

Tensile strength

28 to 32 tons

Thickness

5/8" & 9/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end. Single

inter. Single & double

long. seams D.R. lap.

Dia. of rivet holes in

circ. seams 1 1/2"

long. seams 2 1/2"

Pitch of rivets

2 1/2"

Percentage of strength of circ. seams

plate 56

rivets 52.7

of Longitudinal joint

plate 69.8

rivets 58.5

combined

Working pressure of shell by rules

125.45 lbs.

Thickness of butt straps

outer

inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

complete hemisphere

Material

O.H. Steel

Tensile strength

26 to 30 tons

Thickness

TOP 1 1/2" SIDES 1 1/4"

Radius

36"

Working pressure by rules

185 lbs.

Description of Furnace: Plain, spherical, or dished crown

spherical

Material

O.H. Steel

Tensile strength

26 to 30 tons

Thickness

5/8"

External diameter

top

bottom

Length as per rule

Working pressure by rules

Yes

Pitch of support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Radius of spherical or dished furnace crown

31 1/8"

Working pressure by rule

168 lbs

Thickness of Ogee Ring

1"

Diameter as per rule

D 72"

d 62.25"

Working pressure by rule

191.5 lbs

Combustion Chamber: Material

Tensile strength

Thickness of top plate

Radius if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

Length as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Working pressure of back plate by rules

Tube Plates: Material

front O.H. Steel

back do

Tensile strength

26 tons

Thickness

FRONT 1"

BACK 1 1/4"

Mean pitch of stay tubes in nests

10 29/32"

comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

F = 7 1/2"

B = 7 1/2"

Dia. of tube holes FRONT

stay 2 1/4"

plain 2 1/4"

BACK

stay 2 1/4"

plain 2 1/2"

each alternate tube in outer vertical rows a stay tube

Yes

Working pressure by rules

front 124.5 lbs

back 123.7 lbs

Orders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

009040 . 009049 . 0254

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Foundation

Crown stays: Material ☒ Tensile strength ☒ Diameter { at body of stay, ☒ or over threads, ☒
 No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by rules ☒
Screw stays: Material ☒ Tensile strength ☒ Diameter { at turned off part, ☒ or over threads, ☒ No. of threads per inch ☒
 Area supported by each stay ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒
Tubes: Material Lap welded steel ☒ External diameter { plain 2 1/2" ☒ stay 2 1/2" ☒ Thickness { 11 LSG. ☒ 5/16" ☒
 No. of threads per inch 9 ☒ Pitch of tubes 3 3/4 (Vert) x 3 7/16 (Hor) ☒ Working pressure by rules 125 lbs ☒
Manhole Compensation: Size of opening in shell plate 16 x 12" Section of compensating ring 6 5/8 x 5 1/8" ☒ No. of rivets and diameter ☒
 of rivet holes 44 of 29" DIA: ☒ Outer row rivet pitch at ends 3 1/4" ☒ Depth of flange if manhole flanged ☒
Uptake: External diameter 16 1/8 x 19 1/8" ☒ Thickness of uptake plate 3/16" ☒
Cross Tubes: No. ☒ External diameters { ☒ Thickness of plates ☒
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,
Kawasaki Dockyard Co., Ltd.,

Per. [Signature] Manufacturer. **Director.**

1924.
 Dates of Survey { During progress of work in shops - Oct. 11-20-22. Nov 1-4-6-21. Dec 3-26-30
 while building { During erection on board vessel - 1925 Jan: 9. Feb: 7-10-19.
 Is the approved plan of boiler forwarded herewith (If not state date of approval.) 24-5-24.
 Total No. of visits 14

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This Boiler has been constructed under special survey according to the Rules and approved plans, the materials have been tested found efficient and the workmanship is good. The Boiler has now been installed ^{on board} and tested under steam with satisfactory results, and eligible in my opinion to have the Record D.B. 120th in Register Book.

Survey Fee ... SEE MACH^Y RPT When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

Committee's Minute
 Assigned

WED. 15 APR 1925
 See other Rpt Kob. 4787

H.D. Buchanan
 Engineer Surveyor to Lloyd's Register of Shipping.

