

# REPORT ON BOILERS.

No. 2161

Port of Kobe

Received at London MON 11 MAR 1918

Survey held at Kobe

Date, first Survey March 14

Last Survey Novem 26 1917

(Number of Visits 12)

Book. on the Single Screw Steamer "Botnes Maru"

Tons { Gross 5856  
Net 4257

Built at Kobe

By whom built The Kawasaki Dry Dock Co Ltd When built 1917

Boilers made at Kobe

By whom made The Kawasaki Dockyard Co Ltd when made 1917

Boilers made at do

By whom made do when made do

Registered Horse Power 440

Owners The Osaka Shosen K. Kaisha. Port belonging to Osaka

## WATER TUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel David Colville & Sons, Glasgow

Number for record 5 Total Heating Surface of Boilers 1132 Is forced draft fitted Yes No. and Description of

Boilers One Single Ended Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test

of Certificate Can each boiler be worked separately Yes Area of fire grate in each boiler 33 No. and Description of

Boilers by valves to each boiler Two, spring loaded Area of each valve 5.93 Pressure to which they are adjusted 205 lb

Boilers they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 10' 10" Length 10' 6"

Material of shell plates Steel Thickness 1" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No.

Character of riveting: cir. seams Drat. riv. long. seams Hot riv. shps Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 6 29/32 x 3 29/64

Width of butt straps 14 1/2 x 1" Per centages of strength of longitudinal joint 95.2 Working pressure of shell by

Rules 200 lb Size of manhole in shell 12" x 16" Size of compensating ring (7/4" + flange) x 1" No. and Description of Furnaces in each

Boiler 2 Morrison Material Steel Outside diameter 40 1/4" Length of plain part 236 Thickness of plates 9/16"

Description of longitudinal joint Weld No. of strengthening rings 2 Working pressure of furnace by the rules 236 lb Combustion chamber

Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4" Pitch of stays to ditto: Sides 4 x 8 1/2" Back 4 13/16 x 8 1/8"

7 x 8 If stays are fitted with nuts or riveted heads Nuts in CC Working pressure by rules 204 lb Material of stays Steel Diameter at

Smallest part 1-7 8" Area supported by each stay 66 Working pressure by rules 242 End plates in steam space: Material Steel Thickness 7/8"

Area supported by each stay 15 1/4 x 14 1/2" How are stays secured Drat. nuts Working pressure by rules 202 Material of stays Steel Diameter at smallest part 5-27

Area supported by each stay 15 1/4 x 14 1/2" Working pressure by rules 238 Material of Front plates at bottom Steel Thickness 3/4" Material of

Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2" at wide Working pressure of plate by rules 200 Diameter of tubes 3 1/4"

Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 7/8" Back 3/4" Mean pitch of stays 8 3/4" Pitch across wide

Water spaces 13 3/4" Working pressures by rules 200 lb Girders to Chamber tops: Material Steel Depth and thickness of

Order at centre 8 x 13/16 (two) Length as per rule 27" Distance apart 8" Number and pitch of Stays in each 3 @ 4"

Working pressure by rules 256 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

Separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Boilers Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

Boilers stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

VERTICAL DONKEY BOILER - No. Description Manufacturers of steel

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can

Enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile

Strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates

Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown

plates Stayed by Diameter of uptake Thickness of uptake plates Thickness of water tubes

The foregoing is a correct description,

J. Nakajima Manufacturer.

Dates of Survey while building { During progress of work in shops - - } March 14 April 18 May 10 15 25 June 4 28 July 9 13

{ During erection on board vessel - - - } Oct 25 Nov 12 26 1917

Total No. of visits 12

Is the approved plan of main boiler forwarded herewith Yes

Aut donkey

Lloyd's Register Foundation

W1399 0109

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

This auxiliary main boiler has been made & fitted under special survey & the materials & workmanship have been found good. & the design & scantlings in accordance with the Rules.

Certificate (if required) to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

|                                |                |   |                   |
|--------------------------------|----------------|---|-------------------|
| The amount of Entry Fee...     | Charged on     | : | When applied for. |
| Special ...                    | the Machy. Rpt | : | 19                |
| Donkey Boiler Fee ...          | £              | : | When received.    |
| Travelling Expenses (if any) £ | :              | : | 19                |

*Arthur L. Jones*

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

FRI. 22. MAR. 1918

Committee's Minute  
Assigned



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