

## REPORT ON BOILERS.

No. 211

Port of Kobe Date, first Survey March 14 Last Survey Novem 26 1917  
 Survey held at Kobe (Number of Visits 12)  
 on the Single Screw Steamer "Borneo Maru" Tons { Gross 5856  
 Net 4257  
 Built at Kobe By whom built The Kawasaki Dry Dock Co Ltd When built 1917  
 Made at Kobe By whom made The Kawasaki Dockyard Co Ltd when made 1917  
 Made at do By whom made do when made do  
 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  
 Total Heating Surface of Boilers 1132 Is forced draft fitted Yes No. and Description of  
 One Single Ended Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 33 No. and Description of  
 Two, spring loaded Area of each valve 5.93 Pressure to which they are adjusted 205 lb  
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes  
 Mean dia. of boilers 10' 10" Length 10' 6"  
 Range of tensile strength 28-32 Are the shell plates welded or flanged No.  
 Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 6 29/32  
 Working pressure of shell by  
 Size of compensating ring (7 1/4" flange) x 1" No. and Description of Furnaces in each  
 Outside diameter 40 1/4" Length of plain part 236 Thickness of plates 9/16"  
 Working pressure of furnace by the rules 236 Combustion chamber  
 Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4" Pitch of stays to ditto: Sides 7 x 8 1/2" Back 7 13/16 x 8 1/8"  
 Working pressure by rules 202 Material of stays Steel Diameter at  
 Area supported by each stay 66 Working pressure by rules 202 Material of stays Steel Diameter at  
 Working pressure by rules 202 Material of stays Steel Diameter at  
 Working pressure by rules 238 Material of Front plates at bottom Steel Thickness 3/4" Material of  
 Greatest pitch of stays 13 1/2" at wide Working pressure of plate by rules 200 Diameter of tubes 3 1/4"  
 Material of tube plates Steel Thickness: From 7/8" Back 3/4" Mean pitch of stays 8 3/4" Pitch across wide  
 Working pressures by rules 200 Girders to Chamber tops: Material Steel Depth and thickness of  
 Length as per rule 27 Distance apart 8 Number and pitch of Stays in each 3 @ 4"  
 Superheater or Steam chest: how connected to boiler Can the superheater be shut off and the boiler worked  
 Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet  
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
 Distance between rings Working pressure by rules End plates: Thickness How stayed  
 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  
 Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile  
 Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets  
 Working pressure of shell by rules Thickness of shell crown plates  
 Diameter of furnace Top Bottom Length of furnace  
 Working pressure of furnace by rules Thickness of furnace crown  
 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 - - -  
 During erection on board vessel - - -  
 Total No. of visits 12  
March 14 April 18 May 10 15 25 June 4 28 July 9 13  
Oct 25 Nov 12 26 1917

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 ...	See Machinery Rpt :	19
Donkey Boiler Fee ...	£ :	When received,
Travelling Expenses (if any) £	:	19

Committee's Minute

Assigned

FRI. 22. MAR. 1918

Arthur L. Jones

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



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