

REPORT ON BOILERS.

No. 2163

Port of Kobe

Received at London Office TUE APR. 25 1918.

No. in Survey held at Kobe Date, first Survey 28th Feb. Last Survey 19th Decem 1917
 Reg. Book. Single Screw Steamer "Sumatra Maru" (Number of Visits 16.) Tons } Gross 5856
 on the Single Screw Steamer "Sumatra Maru" } Net 4254
 Built at Kobe By whom built The Kawasaki Dockyard Co. Ltd. When built 1917
 Engines 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

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel David Colville; W. Beardmore

Letter for record 5 Total Heating Surface of Boilers 1132^{sq} ft. Is forced draft fitted Yes No. and Description of See page 3
 boilers One Single Ended Working Pressure 200 lb. Tested by hydraulic pressure to 400 lb. Date of test 25 Aug 1917
 No. of Certificate 400 lb. h.p. ALJ. 25/8/17 Can each boiler be worked separately Yes Area of fire grate in each boiler 33^{sq} ft. No. and Description of See page 3
 Safety valves to each boiler two, spring loaded Area of each valve 5.93^{sq} in. Pressure to which they are adjusted 205 lb.
 Are 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 x 10'-6"
 Material of shell plates Steel Thickness 1" Range of tensile strength 28-32^{tons} Are the shell plates welded or flanged No
 Descrip. of riveting: cir. seams Double riv. long. seams Double riveted Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 6 29/32 x 3 29/64
 Width of butt straps 1 1/2" Per centages of strength of longitudinal joint 95-2 Working pressure of shell by 84.6
 rules 200 lbs Size of manhole in shell 12 x 16 Size of compensating ring (7 1/4 + flange) x 1" No. and Description of Furnaces in each See page 3
 boiler 2 Morrison Material Steel Outside diameter 40 1/4" Length of plain part 236ⁱⁿ Thickness of plates 9/16"
 Description of longitudinal joint Weld No. of strengthening rings 5 Working pressure of furnace by the rules 236^{lb} Combustion chamber See page 3
 plates: 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"
 Top 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 See page 3
 smallest part 1.78" Area supported by each stay 66^{sq} in. Working pressure by rules 242^{lb} End plates in steam space: Material Steel Thickness 7/8"
 Pitch of stays 15 1/4 x 14 1/2" How are stays secured Double nuts Working pressure by rules 202^{lb} 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^{lb} Material of Front plates at bottom Steel Thickness 3/4" Material of See page 3
 Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 200^{lb} Diameter of tubes 3 1/4"
 Pitch of tubes 4 3/4" Mean Material of tube plates Steel Thickness: Front 7/8" Back 3/4" Mean pitch of stays 8 3/4" Pitch across wide See page 3
 water spaces 13 3/4" double 5/8" Working pressures by rules 200^{lb} Girders to Chamber tops: Material Steel Depth and thickness of See page 3
 girder at centre 8 x 13 (two) Length as per rule 27" Distance apart 8" Number and pitch of Stays in each 3 @ 7"
 Working pressure by rules 256^{lb} Superheater or Steam chest; how connected to boiler Yes Can the superheater be shut off and the boiler worked See page 3
 separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet See page 3
 holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness See page 3
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed See page 3
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear See page 3

VERTICAL DONKEY BOILER— No. Description Manufacturers of steel

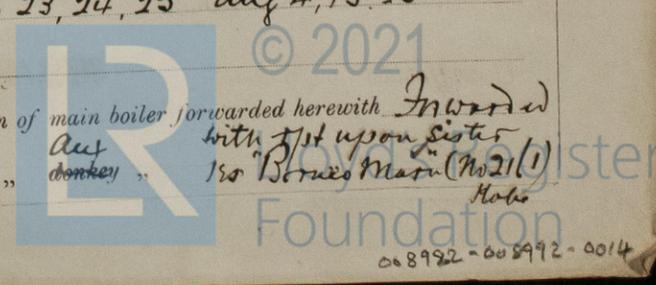
Made at By whom made When made Where fixed
 Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves
 No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey 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, Kawasaki Manufacturer.

Per Makayama Secretary.

Dates of Survey while building { During progress of work in shops -- Feb 28 March 14 May 4, 24 June 5, 26 July 23, 24, 25 Aug 4, 13, 25
 { During erection on board vessel -- Dec 5, 12, 17, 19 1917
 Total No. of visits 16.

Is the approved plan of main boiler forwarded herewith Inward with 1st upon sister 1st Bonus Maru (No 21(1)) Kobe



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

This auxiliary main boiler has been made & fitted under Special Survey in accordance with the requirements of the Rules & the materials & workmanship have been found good.

Certificate (if required) to be sent to

The amount of Entry Fee... £	:	:	When applied for,
Special Fee entered on Machinery Rpt.	£	:	19
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

Arthur Jones

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

Committee's Minute

WED. APR. 3 1918.

Assigned



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