

REPORT ON BOILERS.

No. 2163

Port of Kobe

Received at London Office TUE APR. 22 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 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

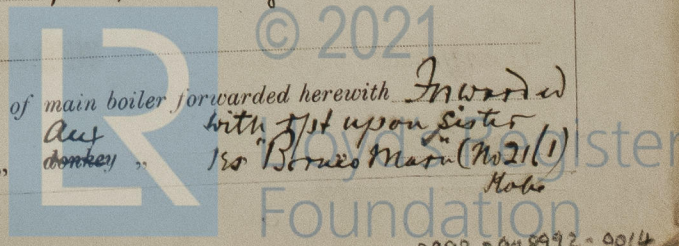
Letter for record 5 Total Heating Surface of Boilers 1132^{sq} Is forced draft fitted Yes No. and Description of
 boilers One Single Ended Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 25 Aug 1917
 No. of Certificate 400 lb Can each boiler be worked separately Yes Area of fire grate in each boiler 33^{sq} No. and Description of
 Safety valves to each boiler Two Area of each valve 5.93^{sq} 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 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 riv. Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 6 29/32ⁱⁿ
 Width of butt straps 14 1/2" 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 1/2 + 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 5 Working pressure of furnace by the rules 236 lb Combustion chamber
 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
 smallest part 1.78" Area supported by each stay 66" 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 5.17"
 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
 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" Material of tube plates Steel Thickness: Front 7/16" 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
 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 Can the superheater be shut off and the boiler worked
 separately Yes Diameter 18" Length 18" Thickness of shell plates 1" Material Steel Description of longitudinal joint Weld Diam. of rivet
 holes 1 1/16" Pitch of rivets 6 29/32" Working pressure of shell by rules 200 lb Diameter of flue 18" Material of flue plates Steel Thickness 3/4"
 If stiffened with rings Yes Distance between rings 18" Working pressure by rules 200 lb End plates: Thickness 3/4" How stayed By stays
 Working pressure of end plates 200 lb Area of safety valves to superheater 5.93^{sq} Are they fitted with easing gear Yes

VERTICAL DONKEY BOILER— No. 1 Description Vertical Donkey Boiler Manufacturers of steel Kawasaki Dockyard Co. Ltd.
 Made at Kobe By whom made The Kawasaki Dockyard Co. Ltd. When made 1917 Where fixed On board
 Working pressure 200 lb tested by hydraulic pressure to 400 lb No. of Certificate 400 lb Fire grate area 33^{sq} Description of safety valves Two
 No. of safety valves Two Area of each 5.93^{sq} Pressure to which they are adjusted 205 lb If fitted with easing gear Yes If steam from main boilers can
 enter the donkey boiler Yes Dia. of donkey boiler 18" Length 18" Material of shell plates Steel Thickness 1" Range of tensile
 strength 28-32^{tons} Descrip. of riveting long. seams Double riv. Dia. of rivet holes 1 1/16" Whether punched or drilled Yes Pitch of rivets 6 29/32"
 Lap of plating Double Per centage of strength of joint 95.2 Working pressure of shell by rules 200 lb Thickness of shell crown plates 9/16"
 Radius of do. 18" No. of Stays to do. 3 Dia. of stays 7/8" Diameter of furnace Top 18" Bottom 18" Length of furnace 18"
 Thickness of furnace plates 3/4" Description of joint Weld Working pressure of furnace by rules 200 lb Thickness of furnace crown
 plates 3/4" Stayed by Stays Diameter of uptake 18" Thickness of uptake plates 3/4" Thickness of water tubes 3/4"

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

Dates of Survey while building { During progress of work in shops - - Feb 28 March 14 May 4, 24 June 5, 21 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 Yes
 " " " " Yes
 " " " " Yes



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 ...	:	:	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.

Committee's Minute

WED. APR. 3 1918.

Assigned



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Foundation