

## REPORT ON BOILERS.

No. 3077.

Received at London Office

TUE. 8 MAR. 1921

Date of writing Report Jan. 20 1921 When handed in at Local Office 1<sup>st</sup> Feb 1921 Port of Kobe  
 No. in Survey held at Kobe Date, First Survey 9<sup>th</sup> Mar 1920 Last Survey 17<sup>th</sup> Dec 1921  
 Reg. Book. on the Steel Single Screw Steamer "ATLANTIC MARU" (Number of Visits 22) Gross 5873 Tons Net 4254  
 Master T. ITANI Built at Kobe By whom built Kawasaki Dockyard Co. Ltd. When built 1921  
 Engines made at Kobe By whom made Kawasaki Dockyard Co. Ltd. When made 1921  
 Boilers made at do By whom made do When made 1921  
 Registered Horse Power N.H.P. 440 Owners Kawasaki Dockyard Co. Ltd. Port belonging to Kobe

MULTITUBULAR BOILERS — MAN. AUXILIARY OR DONKEY. — Manufacturers of Steel Illinois Steel Co., Carnegie Stl. Co.  
Am. Spiral Pipe Co. & John Marshall (Birmingham)

(Letter for record S) Total Heating Surface of Boilers 11320 Is forced draft fitted yes No. and Description of Boilers One S. & Auxy. Boiler Working Pressure 200 Tested by hydraulic pressure to 400 Date of test  
 No. of Certificate Can each boiler be worked separately yes Area of fire grate in each boiler 33 No. and Description of safety valves to each boiler Two Direct Spring Area of each valve 5.93 Pressure to which they are adjusted 205  
 Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler  
 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 Ends Double long. seams Double butt straps Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 6 3/32 + 3 28/64  
 Lap of plates or width of butt straps 14 1/2" x 1" Per centages of strength of longitudinal joint rivets 95.2 plate 84.6 Working pressure of shell by rules 200 Size of manhole in shell 12" x 16" Size of compensating ring (7 1/4" flange) 1" No. and Description of Furnaces in each boiler Two Morrison's Material Steel Outside diameter 40 1/4" Length of plain part top Thickness of plates bottom 9 1/16"  
 Description of longitudinal joint Welded No. of strengthening rings ✓ Working pressure of furnace by the rules 218 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 1/16" x 8 1/8"  
 Top 7" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 213 Material of stays Steel Area at smallest part 1.79 Area supported by each stay 64 Working pressure by rules 223 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 Material of stays Steel Area at smallest part 5.27  
 Area supported by each stay 15 1/4" x 14 1/2" Working pressure by rules 248 Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 15" approx Working pressure of plate by rules 237 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 water spaces 13 3/4" double 5/8" Working pressures by rules 266 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 3/4" (two) Length as per rule 26 5/8" Distance apart 8" Number and pitch of Stays in each 3 @ 7"  
 Working pressure by rules 246 Steam dome: description of joint to shell None % of strength of joint  
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

UPPER HEATER. Type None Date of Approval of Plan 1920 Tested by Hydraulic Pressure to  
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
 Diameter of Safety Valve Pressure to which each is adjusted

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

Dates of Survey { During progress of work in shops - - - Mar 9, 13, 16; Apr 1, 6, 20, 26; May 15; June 4 Is the approved plan of boiler forwarded therewith Yes  
 while building { During erection on board vessel - - - July 12, 13, 21, 29; Aug 2, 10, 13. Total No. of visits 22  
Nov 18; Dec 3, 8, 11, 13, 17.

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

This Boiler has been made + fitted under Special Survey. The Rules have been complied with and the materials + workmanship found good.

This vessel is eligible, it is submitted, for the Record One S. & Aux.

Auxiliary Boiler 200 lbs.

Survey Fee Included with machinery fee. When applied for, 19  
 Travelling Expenses (if any) do When received, 19

FRI. 11 MAR. 1921

Committee's Minute

Assigned

A. Watt  
 Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
 Foundation

006760-006771-0335