

# REPORT ON BOILERS.

No. 2414

MON. 17. MAR. 1919

Received at London Office

Date of writing Report 1st Jan 1919 When handed in at Local Office 191 Port of Kobe  
 No. in Survey held at Kobe Date, First Survey 1st May 1918 Last Survey 8 Jan 1919  
 Reg. Book. on the Steel Single Screw Steamer "TOFUKU MARU" (Number of Visits 18) Gross 5857 Tons Net 4259  
 Master T. WAKASAWA Built at Kobe By whom built The Kawasaki Dry Dock Co Ltd When built 1918  
 Engines made at Kobe By whom made The Kawasaki Dry Dock Co Ltd Yard No 429 When made 1918  
 Boilers made at do By whom made do When made do  
 Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to Kobe

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Union. Amer. Special Pipe Works.  
 (Letter for record S) Total Heating Surface of Boilers 1132 sq ft Is forced draft fitted yes No. and Description of Boilers Two. S. Ended. Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 9.9.18

No. of Certificate 400 LBS Can each boiler be worked separately yes Area of fire grate in each boiler 33 sq ft No. and Description of safety valves to each boiler Two, Spring loaded Area of each valve 5.93 sq ft Pressure to which they are adjusted 205 lbs  
 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 to 32 tons Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams Double riv. long. long. seams Treb. riveted Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 6 29/32 to 43/64"  
 Lap of plates or width of butt straps 14 1/2" x 1" Per centages of strength of longitudinal joint double straps rivets 95.2 Working pressure of shell by rules 200 lbs plate 84.6

Size of manhole in shell 12" x 16" Size of compensating ring (1/4" + flange) x 1" No. and Description of Furnaces in each boiler 2 Morrison's Material Steel Outside diameter 40 1/4" Length of plain part top 9/16" Thickness of plates bottom 9/16"  
 Description of longitudinal joint Weld No. of strengthening rings \_\_\_\_\_ Working pressure of furnace by the rules 236 lbs 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 c.c. Working pressure by rules 204 lbs Material of stays Steel Area at smallest part 1.78 sq ft Area supported by each stay 66 sq ft Working pressure by rules 242 lbs 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 lbs Material of stays Steel Area at smallest part 5.27 sq ft  
 Area supported by each stay 15 1/2" x 14 1/2" Working pressure by rules 238 lbs 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 6" spaces. Doubled 5/8" Working pressure of plate by rules 200 lbs Diameter of tubes 3 1/4"

Pitch of tubes 4 3/8" 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" out 5/8" Working pressures by rules 200 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 x 13/16 (two) Length as per rule 27" Distance apart 8" Number and pitch of Stays in each 3 @ 7"  
 Working pressure by rules 256 lbs Steam dome: description of joint to shell \_\_\_\_\_ % 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 \_\_\_\_\_

SUPERHEATER. Type \_\_\_\_\_ Date of Approval of Plan \_\_\_\_\_ 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 \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_

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

Dates of Survey: During progress of work in shops - 1.13.18 May 4.13.24 June 1.12 July Is the approved plan of boiler forwarded to Secretary. With Rpt 2411 upon Survey 15.11.18 "Tofuku Maru"  
 while building: During erection on board vessel - 8.26.27 Aug. 7.9 Sep. 12.21.25.27 Dec. 1918 Total No. of visits 18  
8 Jan 1919

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
This boiler has been made fitted under Special Survey in accordance with the Rules & materials & workmanship are good. The vessel is eligible in my opinion for the record A.S.S. Boiler 200 lbs.

Survey Fee Included in Macher fees When applied for, \_\_\_\_\_ 191 \_\_\_\_\_  
 Travelling Expenses (if any) £ \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ When received, \_\_\_\_\_ 191 \_\_\_\_\_

Committee's Minute \_\_\_\_\_  
 Assigned See pt. rpt attached  
 FRI. 21. MAR. 1919  
 A. L. Jones © 2020  
 Engineer Surveyor to Lloyd's Register of Shipping.  
 Lloyd's Register Foundation  
 W1359-0106