

# REPORT ON BOILERS.

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Received at London Office

Date of writing Report 19 1921 When handed in at Local Office 19 1921 Port of Middlesbrough  
 No. in Survey held at Stockton-on-Tees Date, First Survey 27th October Last Survey 24th March 1921  
 Reg. Book. 5997 in the Mikage Maru No. 8 (ex. Shakespeare) (Number of Visits 16) Gross Tons }  
 Master (1916-21) Built at \_\_\_\_\_ By whom built \_\_\_\_\_ When built \_\_\_\_\_  
 Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_  
 Boilers made at Stockton By whom made Messrs Tho. Sudron & Co. (No 4454) When made 1921  
 Registered Horse Power \_\_\_\_\_ Owners Messrs Lionel S. Taylor & Co. Port belonging to \_\_\_\_\_

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Messrs J. Spencer & Sons

(Letter for record (5)) Total Heating Surface of Boilers 1354  $\text{sq ft}$  Is forced draft fitted \_\_\_\_\_  
 Boilers Two, Single Ended Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 24-3-21  
 No. of Certificate 6216 Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler 25  $\text{sq ft}$  No. and Description of safety valves to each boiler \_\_\_\_\_  
 Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_

Are they fitted with easing gear \_\_\_\_\_ 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 \_\_\_\_\_

Material of shell plates steel Thickness  $\frac{9}{16}$  Range of tensile strength 29-33 Are the shell plates welded or flanged no  
 Descrip. of riveting: cir. seams single lap long. seams 3 Riv lap Diameter of rivet holes in long. seams  $\frac{15}{16}$  Pitch of rivets  $3\frac{9}{16}$   
 Lap of plates or width of butt straps  $6\frac{1}{2}$  Per centages of strength of longitudinal joint \_\_\_\_\_ rivets 88.3 Working pressure of shell by rules 102 Size of manhole in shell  $16" \times 12"$  Size of compensating ring  $5\frac{1}{2}" \times 3\frac{3}{4}"$  No. and Description of Furnaces in each boiler 2. Fox's Material steel Outside diameter  $32\frac{1}{2}"$  Length of plain part \_\_\_\_\_ Thickness of plates crown  $\frac{3}{8}"$  bottom  $\frac{5}{8}"$

Description of longitudinal joint weld No. of strengthening rings \_\_\_\_\_ Working pressure of furnace by the rules 155 Combustion chamber plates: Material steel Thickness: Sides  $\frac{9}{16}"$  Back  $\frac{1}{2}"$  Top  $\frac{9}{16}"$  Bottom  $\frac{5}{8}"$  Pitch of stays to ditto: Sides  $9\frac{1}{2}"$  Back  $8\frac{1}{2}" \times 8\frac{3}{4}"$   
 Top  $9\frac{1}{2}"$  If stays are fitted with nuts or riveted heads nuts Working pressure by rules 103 Material of stays steel Area at smallest part .96 Area supported by each stay 74.37 Working pressure by rules 103 End plates in steam space: Material steel Thickness  $\frac{25}{32}$   
 Pitch of stays  $16\frac{1}{2}" \times 16\frac{1}{2}"$  How are stays secured nuts & washers Working pressure by rules 105 Material of stays steel Area at smallest part 2.66  
 Area supported by each stay 264 Working pressure by rules 105 Material of Front plates at bottom steel Thickness  $\frac{25}{32}"$  Material of Lower back plate steel Thickness  $\frac{25}{32}"$  Greatest pitch of stays  $13\frac{1}{2}" \times 8\frac{3}{4}"$  Working pressure of plate by rules 163 Diameter of tubes 3"  
 Pitch of tubes  $4\frac{1}{4}" \times 4\frac{1}{4}"$  Material of tube plates steel Thickness: Front  $\frac{25}{32}"$  Back  $\frac{19}{32}"$  Mean pitch of stays  $9\frac{13}{16}"$  Pitch across wide water spaces  $13\frac{1}{2}"$  Working pressures by rules 120 Girders to Chamber tops: Material steel Depth and thickness of girder at centre  $6\frac{1}{2}" \times 1\frac{1}{4}"$  Length as per rule  $25\frac{11}{32}"$  Distance apart  $9\frac{1}{2}"$  Number and pitch of Stays in each one  
 Working pressure by rules 109 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 \_\_\_\_\_

**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,  
 THOMAS SUDRON & CO. LIMITED.  
 (Signed) A. W. Johnston Manufacturer.

Dates of Survey } During progress of 1920 Oct. 27. Nov. 16. 22. Dec. 10. 17. 30. 1921 Jan. 11. 26. Feb. 7. 15. 22. Is the approved plan of boiler forwarded herewith yes.  
 while building } During erection on board vessel - - - March. 2. 9. 17. 22. 24. Total No. of visits 16

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special Survey, are of good material and workmanship and on completion were tested by hydraulic pressure with satisfactory results

Survey Fee ... £ : : } When applied for, ..... 19  
 Travelling Expenses (if any) £ : : } When received, ..... 19

Committee's Minute  
 Assigned

(Signed) Wm Morrison & Wm Bowie  
 Engineer Surveyors to Lloyd's Register of Shipping.



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