

# REPORT ON BOILERS.

No. 25206  
TUE. APR. 9-1912

Received at London Office

Date of writing Report 10 When handed in at Local Office 6.4.12 Port of SUNDERLAND.  
 No. in Survey held at SUNDERLAND. Date, First Survey 8 Feb Last Survey 22 Mar 1912  
 Reg. Book. on the S.S. "Shakespeare" (Number of Visits 7) Gross 3466 Tons Net 2179  
 Master Sunderland Built at Sunderland By whom built J.L. Thompson & Sons Ltd. When built 1911  
 Engines made at Stockton By whom made Blair & Co Ltd. when made 1911  
 Boilers made at Sunderland By whom made Messrs J. Dickinson & Sons Ltd when made 1912  
 Registered Horse Power \_\_\_\_\_ Owners Shakespeare Shipping Co Ltd Port belonging to London

**MULTITUBULAR BOILERS** ~~MAIN~~ ~~AUXILIARY~~ OR **DONKEY.** Manufacturers of Steel J. Spencer & Sons Ltd  
 (Letter for record (S)) Total Heating Surface of Boilers 634 sq ft Is forced draft fitted No No. and Description of Boilers one single ended Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 4-3-12  
 No. of Certificate 3000 Can each boiler be worked separately Yes Area of fire grate in each boiler 24 sq ft No. and Description of safety valves to each boiler Two spring loaded Area of each valve 4.91 sq in Pressure to which they are adjusted 105  
 Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No  
 Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 9' 5 13/32" Length 9' 6"  
 Material of shell plates Steel Thickness 19/32" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams D.R. long. seams T.R. lap Diameter of rivet holes in long. seams 1" Pitch of rivets 4 1/4"  
 Lap of plates on width of butt straps 1/8" Per centages of strength of longitudinal joint rivets 49.8 Working pressure of shell by rules 102 lbs Size of manhole in shell 16" x 12" Size of compensating ring 8" x 19/32" plate 16.4  
 No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 36" Length of plain part top 40" Thickness of plates crown 33" bottom 64"  
 Description of longitudinal joint Single butt strap No. of strengthening rings 10 @ 2" Working pressure of furnace by the rules 103 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8" Pitch of stays to ditto: Sides 11" x 10" Back 12 1/2" x 10 5/8"  
 Top 11" x 10" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 100 lbs Material of stays Steel Area Diameter at smallest part 1.43 sq in Area supported by each stay 133 sq in Working pressure by rules 104 lbs End plates in steam space: Material Steel Thickness 13/16"  
 Pitch of stays 19 1/2" x 16" How are stays secured D.N. riveted heads Working pressure by rules 113 lbs Material of stays Steel Area Diameter at smallest part 3.25 sq in  
 Area supported by each stay 374 sq in Working pressure by rules 100 lbs Material of Front plates at bottom Steel Thickness 13/16" Material of Lower back plate Steel Thickness 13/16" Greatest pitch of stays 12 3/8" x 10 5/8" Working pressure of plate by rules 141 lbs Diameter of tubes 3 1/4"  
 Pitch of tubes 4 1/2" x 4 7/8" Material of tube plates Steel Thickness: Front 13/16" Back 9/16" Mean pitch of stays 9" Pitch across wide water spaces 13 1/4" Working pressures by rules 135 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 x 2" Length as per rule 25 9/16" Distance apart 11" Number and pitch of Stays in each 1 @ 10"  
 Working pressure by rules 109 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked separately \_\_\_\_\_ Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_  
 If stiffened with rings \_\_\_\_\_ Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_  
 Working pressure of end plates \_\_\_\_\_ Area of safety valves to superheater \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

The foregoing is a correct description,  
John Dickinson & Sons, Limited, Manufacturer.

Dates of Survey: During progress of work in shops - - 1912 Feb 8, 16, 21, Mar 4. Is the approved plan of boiler forwarded herewith \_\_\_\_\_  
 while building: During erection on board vessel - - - Mar 6, 14, 22 Total No. of visits 7

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, the materials & workmanship are of good quality & the hydraulic test proved satisfactory.

This boiler has been satisfactorily fixed on the main deck of the vessel and the safety valves adjusted as above. washers:- both 9/32.

Survey Fee ... £ 2. 2. 0. When applied for, 6.4.1912  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received, 12.4.1912

Committee's Minute WED. APR. 10. 1912  
 Assigned sd Minute on Indb. Rpt 7286

William Butler & Lewis & Davis  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.  
 for self & J. J. Lindsay.

