

Rpt. 5a.

## REPORT ON BOILERS.

No. 8071

SAT. AUG. 16. 1913

Date of writing Report 14.8.13 1913 When handed in at Local Office 15.8.1913 Port of Middlesbrough  
 No. in Survey held at Stockton-on-Tees Date, First Survey 11<sup>th</sup> June Last Survey 8<sup>th</sup> Aug 1913  
 Reg. Book. Supp 50n the new steel S/S "SHABONE" (Number of Flats 14) Gross 5767  
 (S.S.N. 643) Tons Net 3230  
 Master Red Built at Sunderland By whom built Sir Jas Laing & Sons When built 1913  
 Engines made at Sunderland By whom made George Black & Co. (N. 984) When made 1913  
 Boilers made at Stockton By whom made Messrs Riley Bros Ltd (N. 4485) When made 1913  
 Registered Horse Power Owners Tank Storage & Banking Co. Ltd Port belonging to Sunderland

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel John Hume & Sons  
 (Letter for record (S) ) Total Heating Surface of Boilers 1190  $\text{sq ft}$  Is forced draft fitted no No. and Description of  
 Boilers One single ended Working Pressure 120 Tested by hydraulic pressure to 240 Date of test 8.8.13  
 No. of Certificate 5136 Can each boiler be worked separately yes Area of fire grate in each boiler 35  $\text{sq ft}$  No. and Description of  
 safety valves to each boiler two direct spring Area of each valve 7.07  $\text{sq in}$  Pressure to which they are adjusted 125  
 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 1-10 Inside dia. of boilers 11'-0" Length 11'-0"  
 Material of shell plates steel Thickness  $\frac{1}{2}$ " Range of tensile strength 28-32 Are the shell plates welded or flanged no  
 Descrip. of riveting: cir. seams 2-R. lap long. seams 2-B-2 Riv Diameter of rivet holes in long. seams  $\frac{15}{16}$ " Pitch of rivets 5"  
 Lap of plates or width of butt straps 9"  $\frac{1}{2}$ " Per centages of strength of longitudinal joint rivets 89.2 Working pressure of shell by  
 rules 122 Size of manhole in shell 16" x 12" Size of compensating ring 7" x  $\frac{1}{2}$ " No. and Description of Furnaces in each  
 boiler 2 plain Material steel Outside diameter 40" Length of plain part top 82" Thickness of plates crown  $\frac{1}{2}$ "  
 Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 127 Combustion chamber  
 plates: Material steel Thickness: Sides  $\frac{1}{2}$ " Back  $\frac{1}{2}$ " Top  $\frac{1}{2}$ " Bottom  $\frac{1}{2}$ " Pitch of stays to ditto: Sides 7 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " Back 7 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ "  
 Top 7 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " stays are fitted with nuts or riveted heads nuts Working pressure by rules 124 Material of stays steel Diameter at  
 smallest part .96 Area supported by each stay 62 Working pressure by rules 123 End plates in steam space: Material steel Thickness  $\frac{27}{32}$ "  
 Pitch of stays 15 $\frac{1}{4}$ " x 15 $\frac{1}{4}$ " How are stays secured nuts Working pressure by rules 126 Material of stays steel Diameter at smallest part 3.67  
 Area supported by each stay 248 Working pressure by rules 154 Material of Front plates at bottom steel Thickness  $\frac{27}{32}$ " Material of  
 Lower back plate steel Thickness  $\frac{27}{32}$ " Greatest pitch of stays 12" x 7 $\frac{1}{2}$ " Working pressure of plate by rules 221 Diameter of tubes 3 $\frac{1}{4}$ "  
 Pitch of tubes 4 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " Material of tube plates steel Thickness: Front  $\frac{27}{32}$ " Back  $\frac{5}{8}$ " Mean pitch of stays 10 $\frac{1}{2}$ " Pitch across wide  
 water spaces 13 $\frac{1}{2}$ " Working pressures by rules 128 Girders to Chamber tops: Material steel Depth and thickness of  
 girder at centre 8" x 1 $\frac{1}{2}$ " Length as per rule 33" Distance apart 7 $\frac{1}{2}$ " Number and pitch of Stays in each 3 @ 7 $\frac{1}{2}$ "  
 Working pressure by rules 144 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

SURVEY REQUEST  
 NO. 602 ATTACHED

The foregoing is a correct description,  
 RILEY BROS. (BOILERMAKERS) LIMITED, Manufacturer.

Dates of Survey During progress of work in shops - - - Jun 11. 12. 14. 18. 21. 24. 27. 30. 31. Aug 1. 8. Is the approved plan of boiler forwarded herewith RETARY. yes  
 while building During erection on board vessel - - - Oct. 7. 9. 21. Total No. of visits 14. 17

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under  
 special survey, is of good material and workmanship and on completion was tested  
 by hydraulic pressure with satisfactory results.  
 The boiler has been satisfactorily fixed on the upper deck of the vessel and its safety  
 valves adjusted, as above, adjusting washers: - P  $\frac{9}{16}$  S  $\frac{1}{2}$

Survey Fee ... £ 3 - 19 - 0 When applied for, 191  
 Travelling Expenses (if any) £ 1 When received, 191

Wm Morrison Lewis & Davis.  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. OCT. 31. 1913

Assigned



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