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# REPORT ON BOILERS.

No. 10757.

Received at London Office FRI. JUL. 30 1920

Writing Report 27.7.20 When handed in at Local Office 29.7.20 Port of MIDDLESBRO  
 in Survey held at Stockton-on-Tees Date, First Survey 28<sup>th</sup> Jan'y Last Survey 22<sup>nd</sup> July 1920.  
 on the S.S. Ethel Radcliffe (Number of Visits 11) Gross Tons }  
 (S.S. No. 196) Net Tons }  
 Built at Stockton By whom built James Craig Taylor & Co. -When built  
 By whom made \_\_\_\_\_ When made \_\_\_\_\_  
 By whom made James Riley Bros Ltd (No. 5255) When made 1920  
 Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

**WATER TUBULAR BOILERS** *See Mdb. Letter 16-12-20* MAIN, AUXILIARY OR DONKEY. —Manufacturers of Steel John Meneer & Sons  
 for record (S) Total Heating Surface of Boilers 1590  $\phi$  Is forced draft fitted \_\_\_\_\_ No. and Description of  
 One single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 22.7.20  
 Certificate 6143 Can each boiler be worked separately  Area of fire grate in each boiler 50  $\phi$  No. and Description of  
 valves to each boiler 2 direct spring Area of each valve 5.94  $\square$  Pressure to which they are adjusted 185 lb  
 fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no.  
 distance between boilers uptakes and bunkers woodwork 2'-0" inside Mean dia. of boilers 12'-6" Length 11'-0"  
 of shell plates steel Thickness 1 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged no  
 of riveting: cir. seams 2 R-lap long. seams 2 B-3 Riv. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7 1/2"  
 of plates or width of butt straps 15 3/4" x 1 1/2" in Per centages of strength of longitudinal joint 89.6 Working pressure of shell by  
181 Size of manhole in shell 19" x 15" Size of compensating ring 7 x 1" m. Neil No. and Description of Furnaces in each  
3 Brighton Material steel Outside diameter 99 1/4" Length of plain part top Thickness of plates 1 1/2"  
Weld No. of strengthening rings \_\_\_\_\_ Working pressure of furnace by the rules 199 Combustion chamber  
 Material steel Thickness: Sides 5/8" Back 2 1/2" Top 5/8" Bottom 1 1/2" Pitch of stays to ditto: Sides 9 x 7 1/2" Back 9 x 8 1/2"  
4989 9/16" x 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183 Material of stays steel Area at  
7275 end part 1.75 Area supported by each stay 76.5 Working pressure by rules 181 End plates in steam space: Material steel Thickness 1"  
 of stays 17" x 15" How are stays secured nuts + washers Working pressure by rules 184 Material of stays steel Area at smallest part 4.57  
 supported by each stay 255 Working pressure by rules 187 Material of Front plates at bottom steel Thickness 1 1/2" Material of  
 back plate steel Thickness 7/8" Greatest pitch of stays 13 3/4" x 9 1/2" Working pressure of plate by rules 199 Diameter of tubes 3 1/2"  
 tubes 4 3/8" x 4 1/4" Material of tube plates steel Thickness: Front 1" Back 23/32" Mean pitch of stays 9 1/2" Pitch across wide  
 spaces 13 1/2" Working pressures by rules 182 Girders to Chamber tops: Material steel Depth and thickness of  
 centre 9 1/4" x 1 3/8" Length as per rule 32" Distance apart 9" Number and pitch of Stays in each 30 7 1/2"  
 pressure by rules 180 Steam dome: description of joint to shell none % of strength of joint \_\_\_\_\_  
 Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_  
 Working pressure of shell by rules \_\_\_\_\_ Crown plates \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

**FEATER.** Type \_\_\_\_\_ Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to \_\_\_\_\_  
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler \_\_\_\_\_  
 Safety Valve \_\_\_\_\_ Pressure to which each is adjusted \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_

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

564  
 During progress of work in shops - - - 1920 Jan 28. Feb 3. 11. June 2. 11. 15. 18. 24 Is the approved plan of boiler forwarded herewith yes  
 During erection on board vessel - - - July 6. 8. 22 Total No. of visits 11.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under  
survey: is of good material and workmanship and on completion was tested by  
hydraulic pressure with satisfactory results. The boiler is to be fitted on board at this port.  
Boiler has now been satisfactorily secured on board, examined under steam and  
safety valves adjusted

Survey Fee ... £ 5-2-0 When applied for, Monthly A/C.  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received, \_\_\_\_\_

Committee's Minute TUE. DEC. 14 1920  
 signed \_\_\_\_\_

W. Morrison  
 Engineer Surveyor to Lloyd's Register of Shipping.

