

# REPORT ON BOILERS.

No. 10178

Received at London Office THU. 15 AUG. 1918

Date of writing Report 1918 When handed in at Local Office 13/8/18 Port of Middlesbrough  
 No. in Survey held at Stockton-on-Tees Date, First Survey 10<sup>th</sup> May Last Survey 9<sup>th</sup> Aug 1918  
 Reg. Book. on the (Number of Vests 17) Gross Tons Net  
 Master Built at Appleton By whom built back & Sons When built  
 Engines made at By whom made Messrs Plenty & Son Lim. When made  
 Boilers made at Stockton By whom made Messrs Riley Bros Lim. (N<sup>o</sup> 5104) When made 1918  
 Registered Horse Power Owners Port belonging to

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

(Letter for record (S) Total Heating Surface of Boilers 1271 sq ft Is forced draft fitted No. and Description of Boilers One single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 9.8.18  
 No. of Certificate 5918 Can each boiler be worked separately Area of fire grate in each boiler 38 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 Inside Mean dia. of boilers 12'-0" Length 11'-0"  
 Material of shell plates steel Thickness 3/32" 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-3 Riv Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7/8"  
 Lap of plates or width of butt straps 13 3/4" x 15 1/16" 5 Rivets per pitch rivets 86.5 Working pressure of shell by rules 180 Size of manhole in shell 19" x 15" Size of compensating ring 7" x 1" No. and Description of Furnaces in each boiler 2 Morrison Material steel Outside diameter 44 1/2" Length of plain part top 1/2" Thickness of plates crown 2 1/8" bottom 1/2"  
 Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rules 190 Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 2/32" Top 5/8" Bottom 13/16" Pitch of stays to ditto: Sides 9" x 8" Back 8 1/4" x 9 1/4"  
 Top 8" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 188 Material of stays steel Area at smallest part 1.79 Area supported by each stay 72 Working pressure by rules 193 End plates in steam space: Material steel Thickness 1"  
 Pitch of stays 16" x 15 1/2" How are stays secured nuts & washers Working pressure by rules 188 Material of stays steel Area at smallest part 4.57  
 Area supported by each stay 261 Working pressure by rules 182 Material of Front plates at bottom steel Thickness 1" Material of Lower back plate steel Thickness 1" Greatest pitch of stays 14" x 9 1/4" Working pressure of plate by rules 238 Diameter of tubes 3 1/2"  
 Pitch of tubes 5" x 4 3/4" Material of tube plates steel Thickness: Front 1" Back 13/16" Mean pitch of stays 11 1/4" Pitch across wide water spaces 15" Working pressures by rules 181 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 10" x 1 3/8" Length as per rule 36" Distance apart 8" Number and pitch of Stays in each 3 @ 8"  
 Working pressure by rules 181 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

SURVEY REQUEST NO. 1423 ATTACHED.

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

Manufacturer.

Dates of Survey: During progress of work in shops 1918. May 10-14-17. June 25. July 6-9-12 Is the approved plan of boiler forwarded herewith yes  
 while During erection on building board vessel 18.23.30. Aug 2-9.  
 Total No. of visits 12

**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

Survey Fee £ 4-5-0 When applied for Monthly A/C  
 Travelling Expenses (if any) £ : : When received, 191

W. Morrison

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

