

# REPORT ON BOILERS.

Received at London Office THU. JUN. 20. 1912

Date of writing Report 31<sup>st</sup> May 1912 When handed in at Local Office JUN 8 1912 Port of Newcastle  
 No. in Survey held at Gateshead Date, First Survey 29<sup>th</sup> Apr. Last Survey 26<sup>th</sup> Nov 1912  
 Reg. Book. 233 on the Donkey boiler for the Ss Barrow Edwards Vay (Number of Visits) Gross 2445  
 Master G. Appolonio Built at Lanardery By whom built Lanardery S & S. C<sup>o</sup> L<sup>td</sup> When built 1902-7  
 Engines made at Glasgow By whom made Hullon & Sons L<sup>td</sup> when made 1902-7  
 Boilers made at Gateshead By whom made Clarke Chapman & Co No. 2242 E when made 1912  
 Registered Horse Power Owners Soc. de Nav. a Vap. Ecu. Matas Prunada Port belonging to Lucupiendo

## MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel J. Spence & Sons

(Letter for record S.) Total Heating Surface of Boilers 550 sq Is forced draft fitted no No. and Description of Boilers one, single-ended Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 31/5/12  
 No. of Certificate 8322 Can each boiler be worked separately  Area of fire grate in each boiler 22 1/2 sq No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 7.07 sq Pressure to which they are adjusted 85 lbs.  
 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 3'-0" Mean dia. of boilers 8'-6" Length 8'-6"  
 Material of shell plates Steel Thickness 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged no  
 Descrip. of riveting: cir. seams S. Lap. long. seams S. Lap. Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3 1/4"  
 Lap of plates or width of butt straps 4 1/2" Per centages of strength of longitudinal joint rivets 72-1 Working pressure of shell by rules 85 lbs Size of manhole in shell 15" x 12" Size of compensating ring 6" x 1/2" No. and Description of Furnaces in each boiler 2 - plain Material Steel Outside diameter 31 7/8" Length of plain part top 62" Thickness of plates crown 7/16" bottom 62"  
 Description of longitudinal joint S. Lap No. of strengthening rings  Working pressure of furnace by the rules 103 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 9/16" Top 1/2" Bottom 1/2" Pitch of stays to ditto: Sides 10" x 9" Back 11" x 11" Top 9" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 91 lbs Material of stays Steel Diameter at smallest part 1-23 0" Area supported by each stay 121 0" Working pressure by rules 81 lbs End plates in steam space: Material Steel Thickness 1/16" Pitch of stays 17" x 11" How are stays secured S. N. W. Working pressure by rules 109 lbs Material of stays Steel Diameter at smallest part 1 7/8" Area supported by each stay 187 0" Working pressure by rules 115 lbs Material of Front plates at bottom Steel Thickness 1/16" Material of Lower back plate Steel Thickness 1/16" Greatest pitch of stays 11" x 11" Working pressure of plate by rules 35 lbs Diameter of tubes 3" Pitch of tubes 4" x 4" Material of tube plates Steel Thickness: Front 1/16" Back 5/8" Mean pitch of stays 12" Pitch across wide water spaces 13" Working pressures by rules 97 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 1/2" x 1" Length as per rule 23 3/4" Distance apart 8 1/2" Number and pitch of Stays in each 1-10 1/2"  
 Working pressure by rules 118 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

FOR CLARKE, CHAPMAN & CO. LTD.  
 The foregoing is a correct description,  
Robert Scott Manufacturer.

Dates of Survey 1912 During progress of work in shops Apr. 29. May 7. 10. 22. 31. Is the approved plan of boiler forwarded herewith Director yes  
 while building see Weekly Report 63354 Total No. of visits 5

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. This donkey boiler has been constructed under special survey & the materials & workmanship are found to be good. This boiler has now been fitted on board and efficiently secured in place (Main deck).

Survey Fee ... £2 : 2 : 0 } When applied for, Monthly  
 Travelling Expenses (if any) £ : : } When received, 19

Thomas Field & Purdoch  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. DEC. -6. 1912  
 Assigned see Minute on hwc. Rpt.  
Wise Rec. Rpt hwc 24.6.12 63354

