

REPORT ON BOILERS.

No. 56134
MON. 15 FEB 1909

Received at London Office

Writing Report 6th Oct. 1908 When handed in at Local Office 19 Port of Newcastle
 Date, First Survey Jan. 13th 1908 Last Survey Feb 2nd 1909
 in: Survey held at Gateshead
 Book. 5/3 Brantford (Number of Visits) } Gross }
 on the } } } Net }
 Built at Newcastle By whom built Northumbeland L. B. Co. 1856 when built
 Lines made at Sunderland By whom made Richardsons Westgate & Co. Ltd. when made 1908
 made at Gateshead By whom made Clarke Chapman & Co. 1872 when made 1908
 Stere Horse Power Owners Port belonging to

WATER TUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel J. Spence & Sons

For record S Total Heating Surface of Boilers 1000 sq ft 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 5/10/08
 Certificate 7771 Can each boiler be worked separately ✓ Area of fire grate in each boiler 34.5 sq ft No. and Description of Valves to each boiler 2 Spring ✓ Area of each valve 4.04 sq ft Pressure to which they are adjusted 82 lbs
 they fitted with easing gear yes ✓ In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no ✓
 least distance between boilers or uptakes and bunkers or woodwork 15' Mean dia. of boilers 10' - 5 15/32" Length 10' - 0"
 Material of shell plates Steel Thickness 17/32" Range of tensile strength 26-29 Are the shell plates welded or flanged no
 Pitch of riveting: cir. seams S. Lap long. seams S. Lap Diameter of rivet holes in long. seams 7/8" Pitch of rivets 4 1/2"
 of plates or width of butt straps 6 1/2" ✓ Per centages of strength of longitudinal joint rivets 85- Working pressure of shell by plate 80.5-
85 lbs Size of manhole in shell 16" x 12" ✓ Size of compensating ring 6" x 17/32" No. and Description of Furnaces in each 2 - plain Material Steel Outside diameter 39" Length of plain part top 79" Thickness of plates crown 9/16" bottom 75"
 Description of longitudinal joint Welded No. of strengthening rings ✓ Working pressure of furnace by the rules 110 lbs Combustion chamber: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 9/16" Pitch of stays to ditto: Sides 7 7/8" x 7 7/8" Back 7 7/8" x 7 3/4" 7 7/8" x 7 7/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 138 lbs Material of stays Steel Diameter at top part 1.230" Area supported by each stay 62 sq in Working pressure by rules 118 lbs End plates in steam space: Material Steel Thickness 1 1/16"
 of stays 16 1/2" x 14 1/2" How are stays secured S. N. W. Working pressure by rules 93 lbs Material of stays Steel Diameter at smallest part 2.760" supported by each stay 239 sq in Working pressure by rules 115 lbs Material of Front plates at bottom Steel Thickness 1 1/16" Material of back plate Steel Thickness 1 1/16" Greatest pitch of stays 11" ✓ Working pressure of plate by rules 165 lbs Diameter of tubes 3 1/4"
 of tubes 4 9/16" x 4 1/4" Material of tube plates Steel Thickness: Front 4/16" ✓ Back 5/8" ✓ Mean pitch of stays 12 1/8" Pitch across wide spaces 13" ✓ Working pressures by rules 96 lbs Girders to Chamber tops: Material Steel Depth and thickness of at centre 7 1/4" x 1 1/8" ✓ Length as per rule 25" ✓ Distance apart 7 7/8" ✓ Number and pitch of Stays in each 2 - 7 7/8" ✓
 Working pressure by rules 174 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked yes ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓
 strengthened 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.

During progress of work in shops - - - Jan 13, 17, 21, 22, Feb 2, 3, 10, 11, 21, Apr 21, May 11, 20, 21, July 3, 25, 28 Is the approved plan of boiler forwarded herewith no
 During erection on board vessel - - - Aug 20, 25, Oct 5 (Note) Oct. 28, 1907, Jan 6, Feb 2 Director.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. This donkey boiler has been constructed under special survey & the materials & workmanship found to be of a high standard & good. Examined under steam & valves adjusted to the working pressure. J. T. Frislay

Survey Fee ... £ 2 : 2 - } When applied for, Monday 19th
 Travelling Expenses (if any) £ : : } When received, 1 DEC 1908

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

Printed by the Registrar of Shipping, London. FRI. 19 FEB 1909

