

REPORT ON BOILERS.

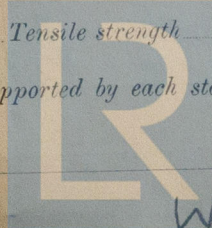
No. 16610.

Received at London Office 17 APR 1928

Date of writing Report 14th Sep 1928 When handed in at Local Office 16.4.1928 Port of W. Hartlepool
 No. in Survey held at Hartlepool Date, First Survey 16th January Last Survey 11th April 1928
 on the Boilers D175 for S. STONEPOOL (Number of Visits 14) Gross 4802 Tons Net 29⁷/₈
 Built at Middlesbrough By whom built Smiths Dock Co Yard No. 842 When built 1928
 Engines made at Middlesbrough By whom made Smiths Dock Co Ltd. Engine No. 310 When made 1928
 Boilers made at Hartlepool By whom made Richardsons Westgarth & Co Boiler No. D175 When made 1928
 Owners Pool Shipping Co. Port belonging to West Hartlepool

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Wm Beardmore & Co Ltd. (Letter for Record S)
 Total Heating Surface of Boilers 7688 sq. ft. Is forced draught fitted yes Coal or Oil fired coal
 No. and Description of Boilers Three single ended Working Pressure 180
 Tested by hydraulic pressure to 320 Date of test 20.3.28 No. of Certificate 3731. Can each boiler be worked separately yes
 Area of Firegrate in each Boiler 56.5 sq. ft. No. and Description of safety valves to each boiler Pair Spring loaded
 Area of each set of valves per boiler {per Rule 16.3 as fitted 16.58} Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓
 Smallest distance between ~~boiler~~ uptakes and bunkers 6'-3" Is oil fuel carried in the double bottom under boilers no.
 Smallest distance between shell of boiler and tank top plating 3'-6" Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 15'-9⁷/₈" Length 11'-0" Shell plates: Material Steel Tensile strength 28/32.5
 Thickness 1⁹/₁₆" Are the shell plates welded or flanged no Description of riveting: circ. seams {end D.R. Lap inter. ✓}
 g. seams Tub. H. D. B. S. Diameter of rivet holes in {circ. seams 1³/₃₂" long. seams 1³/₃₂"} Pitch of rivets {3⁷/₈" 8⁷/₈"}
 Percentage of strength of circ. end seams {plate 65.8 rivets 41.3} Percentage of strength of circ. intermediate seam {plate 85.5 rivets ✓}
 Percentage of strength of longitudinal joint {plate 85.8 rivets 88.3} Working pressure of shell by Rules 182 lb.
 Thickness of butt straps {outer 3¹/₂" inner 1³/₂"} No. and Description of Furnaces in each Boiler 3 Deightons
 Material Steel Tensile strength 26/30 Smallest outside diameter 46⁷/₈"
 Length of plain part {top ✓ bottom ✓} Thickness of plates {crown 1⁹/₁₆" bottom 3²/₃₂"} Description of longitudinal joint welded
 Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 185 lb.
 Plates in steam space: Material Steel Tensile strength 26/30 Thickness 1⁵/₁₆" Pitch of stays 20" x 22"
 How are stays secured Double nuts Working pressure by Rules 182 lb.
 Front plates: Material {front Steel back Steel} Tensile strength {26/30 26/30} Thickness {3⁷/₈" 3³/₄"}
 Can pitch of stay tubes in nests 10⁵/₈" Pitch across wide water spaces 14¹/₄" Working pressure {front 185 lb. back 195 lb.}
 Orders to combustion chamber tops: Material Steel Tensile strength 28/32 Depth and thickness of girder
 Centre 8³/₈" x 1³/₄" Length as per Rule 33³/₄" Distance apart 9⁵/₈" No. and pitch of stays
 Each Three 8" Working pressure by Rules 180 Combustion chamber plates: Material Steel
 Tensile strength 26/30 Thickness: Sides 2³/₃₂" Back 1⁹/₃₂" Top 5⁵/₈" Bottom 2³/₃₂"
 Pitch of stays to ditto: Sides 7⁵/₈" x 8⁷/₈" Back 8¹/₂" x 8⁷/₈" Top 8" x 9⁵/₈" Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules 184 lb. Front plate at bottom: Material Steel Tensile strength 26/30
 Thickness 3⁷/₈" Lower back plate: Material Steel Tensile strength 26/30 Thickness 3³/₄"
 Pitch of stays at wide water space 13¹/₂" x 8⁷/₈" Are stays fitted with nuts or riveted over nuts
 Working Pressure 183 Main stays: Material Steel Tensile strength 28/32
 Diameter {At body of stay 3¹/₄" Over threads ✓} No. of threads per inch 6 Area supported by each stay 20" x 22"
 Working pressure by Rules 182 Screw stays: Material Steel Tensile strength 26/30
 Diameter {At turned off part 1¹/₂" Over threads ✓} No. of threads per inch 9 Area supported by each stay 7⁵/₈" x 8⁷/₈"



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Working pressure by Rules 180 lb Are the stays drilled at the outer ends no Margin stays: Diameter At turned off part, 1 3/4"
 No. of threads per inch 9 Area supported by each stay 10 3/4" x 8 3/8" Working pressure by Rules 208 lb
 Tubes: Material Iron External diameter 3 1/4" Thickness 8 W.G. No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 230 + 272 Manhole compensation: Size of opening
 shell plate 13" x 16 1/2" Section of compensating ring 12 7/16" x 1 9/32" No. of rivets and diameter of rivet holes 30 1 3/2"
 Outer row rivet pitch at ends 8 5/8" Depth of flange if manhole flanged
 Tensile strength Thickness of shell Description of longitudinal joint
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter
 stays Inner radius of crown Working pressure by Rules
 How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell

Type of Superheater none Manufacturers of Tubes
 Number of elements Material of tubes Steel castings
 Material of headers Tensile strength Thickness Can the superheater be shut off
 the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
 Area of each safety valve Are the safety valves fitted with easing gear Working pressure as
 Rules Pressure to which the safety valves are adjusted Hydraulic test pressure
 tubes castings and after assembly in place Are drain cocks or valves fitted
 to free the superheater from water where necessary
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with yes.

The foregoing is a correct description,
 FOR RICHARDSON, WESTON & CO. LIMITED. Manufactured by
 Dates of Survey During progress of work in shops - Jan. 16. 30. Feb. 3. 7. 13. 17. 21. 24. 27. Mar. 2. 12. Are the approved plans of boiler and superheater forwarded herewith
 while building During erection on board vessel - - - 16. 20. Apr. 11. (If not state date of approval.)
 Total No. of visits 14

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 These boilers have been built under Special Survey. The materials and workmanship are good and efficient.
 On completion they satisfactorily withstood the hydraulic test.
 They have been despatched to Middlesbrough for fitting on board.

These boilers have been securely fitted aboard and their safety valves adjusted and tested under steam with satisfactory results.

Survey Fee ... £
 Travelling Expenses (if any) £
 When applied for, 192
 When received, 192

R.D. Shilston
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute
 Assigned See Mob Reg. No. 13365

FRL 27 JUL 1928