

REPORT ON BOILERS.

22 APR 1930

Received at London Office

Date of writing Report 16.4.30 When handed in at Local Office 16.4.30 Port of MIDDLESBROUGH.

No. in Reg. Book. Survey held at STOCKTON Date, First Survey 5th February Last Survey 16.4.30.

on the boiler for Messrs. Plenty, Son T.S.S. 'SALVADOR' (Number of Visits 14) Tons } Gross 255-42
Net ✓

Master ✓ Built at Selby By whom built Cochrane & Sons Yard No. 1049 When built 1930

Engines made at Newbury By whom made Plenty & Sons. Engine No. 2640 When made 1930

Boilers made at Stockton By whom made Piley Bros. (Boilermakers) Ltd Boiler No. 5984A When made 1930.

Nominal Horse Power ✓ Owners ✓ Port belonging to ✓

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Iron Co. (Letter for Record S.)

Total Heating Surface of Boilers 1650 sq. ft. ✓ Is forced draught fitted ✓ Coal or Oil fired ✓

No. and Description of Boilers 1 S.B. ✓ Working Pressure 190 lbs. ✓

Tested by hydraulic pressure to 335 lbs. Date of test 16.4.30 No. of Certificate 6776. Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 53 sq. ft. ✓ No. and Description of safety valves to each boiler ✓

Area of each set of valves per boiler per Rule as fitted Pressure to which they are adjusted 190 lbs. (See over) Are they fitted with casing 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 ✓ Is oil fuel carried in the double bottom under boilers ✓

Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated ✓

Largest internal dia. of boilers 13'-3³/₄" ✓ Length 10'-6" ✓ Shell plates: Material Steel ✓ Tensile strength 29/33. ✓

Thickness 1¹/₈" ✓ Are the shell plates welded or flanged no. ✓ Description of riveting: circ. seams end D.R. ✓
inter. ✓

long. seams T.R.D.B.S. (5 rivets) ✓ Diameter of rivet holes in circ. seams 1⁷/₃₂" ✓ Pitch of rivets 3¹/₂" ✓
long. seams 1³/₁₆" ✓ 8³/₈" ✓

Percentage of strength of circ. end seams plate 65.2 ✓ Percentage of strength of circ. intermediate seam plate 85.8 ✓
rivets 47.1 ✓ combined 87.4 ✓ Working pressure of shell by Rules 192 lbs. ✓

Percentage of strength of longitudinal joint plate 85.8 ✓ Working pressure of shell by Rules 192 lbs. ✓
rivets 87.4 ✓ combined 89.0 ✓

Thickness of butt straps outer 2⁷/₃₂" ✓ No. and Description of Furnaces in each Boiler 3 C.F. ✓
inner 3¹/₃₂" ✓ Tensile strength 26/30. ✓ Smallest outside diameter 3'-3⁵/₁₆" ✓

Material Steel ✓ Thickness of plates crown 1⁷/₃₂" ✓ Description of longitudinal joint weld. ✓
bottom 3²/₃₂" ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 195 lbs. ✓

End plates in steam space: Material Steel ✓ Tensile strength 26/30 ✓ Thickness 1¹/₃₂" ✓ Pitch of stays 19" x 16" ✓

How are stays secured D.N.W. ✓ Working pressure by Rules 192 lbs. ✓

Tube plates: Material front Steel ✓ Tensile strength 26/30 ✓ Thickness 29/32 ✓
back Steel ✓ 13/16" ✓

Mean pitch of stay tubes in nests 10³/₁₆" ✓ Pitch across wide water spaces 14³/₄" x 8¹/₂" ✓ Working pressure front 194 lbs. ✓
back 228 " ✓

Girders to combustion chamber tops: Material Steel ✓ Tensile strength 28/32. ✓ Depth and thickness of girder ✓

at centre 9" x 3³/₄" (double) ✓ Length as per Rule 2'-6" ✓ Distance apart 11" ✓ No. and pitch of stays ✓

in each 3-7" ✓ Working pressure by Rules 190 lbs. ✓ Combustion chamber plates: Material Steel ✓

Tensile strength 26/30. ✓ Thickness: Sides 1¹/₁₆" ✓ Back 2¹/₃₂" ✓ Top 1¹/₁₆" ✓ Bottom 1¹/₁₆" ✓

Pitch of stays to ditto: Sides 10¹/₂" x 7" ✓ Back 9" x 8¹/₄" ✓ Top 11" x 7" ✓ Are stays fitted with nuts or riveted over nuts. ✓

Working pressure by Rules 194 lbs. ✓ Front plate at bottom: Material Steel ✓ Tensile strength 26/30. ✓

Thickness 3²/₃₂" ✓ Lower back plate: Material Steel ✓ Tensile strength 26/30 ✓ Thickness 2⁷/₃₂" ✓

Pitch of stays at wide water space 14³/₄" x 9" ✓ Are stays fitted with nuts or riveted over nuts ✓

Working Pressure 194 lbs. ✓ Main stays: Material Steel ✓ Tensile strength 28/32. ✓

Diameter At body of stay, 2⁷/₈" ✓ No. of threads per inch 6. ✓ Area supported by each stay 297.5 ✓
Over threads

Working pressure by Rules 205 lbs. ✓ Screw stays: Material Steel ✓ Tensile strength 26/30. ✓

Diameter At turned off part, 1⁵/₈" ✓ No. of threads per inch 9. ✓ Area supported by each stay 75 ✓
Over threads



002938-002946-0250

Working pressure by Rules 202 lbs. Are the stays drilled at the outer ends no. Margin stays: Diameter ^{At turned off part.} 1 7/8"
 No. of threads per inch 9. Area supported by each stay 101 sq Working pressure by Rules 211 lbs.
 Tubes: Material iron External diameter ^{Plain} 3 1/4" 6 3/16" Thickness ^{Stay} 8 wgs. 9/16" No. of threads per inch 9.
 Pitch of tubes 4 1/4" x 4 1/2" Working pressure by Rules p. 230 lbs. s. 197 lbs. Manhole compensation: Size of opening in
 shell plate 20" x 16" Section of compensating ring 9" x 18" No. of rivets and diameter of rivet holes 44 - 1 7/32"
 Outer row rivet pitch at ends 9" Depth of flange if manhole flanged ✓ Steam Dome: Material
 Tensile strength Thickness of shell Description of longitudinal joint
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint ^{Plate}
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter of
 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 Manufacturers of ^{Tubes} ✓
 Number of elements Material of tubes ^{Steel castings} Internal diameter and thickness of tubes
 Material of headers Tensile strength Thickness Can the superheater be shut off and
 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 per
 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 22 inclusive for boilers been complied with Yes.
 RILEY BROS. (BOILERMAKERS) LIMITED.
 The foregoing is a correct description,
 J. H. Shields, SECRETARY, Manufacturer.

Dates of Survey ^{During progress of work in shops - -} 1930: Feb. 5, 12, 19, 24, Mar. 4, 6, 12, 19. Are the approved plans of boiler and superheater forwarded herewith Yes.
^{while building} ^{During erection on board vessel - - -} 25, 28, Apr. 1, 8, 11, 16 Total No. of visits 14
 (If not state date of approval.)

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 The materials and workmanship are good.
 This boiler has been built under special survey in accordance with the Rules and Approved Plan.
 It will be installed in the Hull district

This boiler has been satisfactorily fitted on board, tried under steam, and its safety valves adjusted to 190 lbs. □
 J. H. Shields

Survey Fee £ 11-0-0. When applied for, Monthly
 Travelling Expenses (if any) £ : : When received, 192
 P. M. Man.
 Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 1 JUL 1930
 Committee's Minute
 Assigned See F. E. Rep.
 © 2020 Lloyd's Register Foundation