

REPORT ON BOILERS.

No. 13068

Received at London Office - 6 OCT 1927

Date of writing Report 3. 10. 27 When handed in at Local Office 3. 10. 27 Port of MIDDLESBROUGH.

No. in Survey held at STOCKTON. Date, First Survey 29. 7. 1924 Last Survey 3. 10. 1927.

Reg. Book (Number of Visits 7) Tons Gross Net

Built at By whom built Davie S B Co. Yard No. 497. When built

Engines made at By whom made Richardsons, Westgarth & Co. Engine No. 2669. When made

Boilers made at By whom made Boiler No. When made

Owners Port belonging to

VERTICAL DONKEY BOILER.

Made at Stockton By whom made Riley Bros. Boiler No. 5755 When made 1927. Where fixed

Manufacturers of Steel David Colville & Sons.

Total Heating Surface of Boiler 213 sq. ft. Is forced draught fitted Coal or Oil fired

No. and Description of Boilers One vertical Meredith Working pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs. Date of test 3. 10. 27. No. of Certificate 6581.

Area of Firegrate in each Boiler 18 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 Are they fitted with easing gear

State whether steam from main boilers can enter the donkey boiler Smallest distance between boiler or uptake and bunkers

or woodwork Is oil fuel carried in the double bottom under boiler Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated Largest internal dia. of boiler 5'-6" Height 8'-6"

Shell plates: Material Steel Tensile strength 28/32 Thickness C = 11/16

Are the shell plates welded or flanged No. Description of riveting: circ. seams end SR inter SR long. seams C = T.R. lap.

Dia. of rivet holes in circ. seams end 13/16 Pitch of rivets To B 4 3/8 Percentage of strength of circ. seams plate 55.9 rivets end 52.0 of Longitudinal joint rivets 78.3 73.3 combined

Working pressure of shell by rules 112 lbs. Thickness of butt straps outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished Material Steel

Tensile strength 26/30 Thickness 9/16 Radius 5'-6" Working pressure by rules 100 lbs.

Description of Furnace: Plain, spherical, or dished crown dished Material Steel Tensile strength 26/30

Thickness 5/8" External diameter top 4'-9 1/2" bottom 4'-11 1/2" Length as per rule 2'-1 3/4" Working pressure by rules 140 lbs.

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown 4'-0" Working pressure by rule 108 lbs.

Thickness of Ogee Ring Diameter as per rule D a Working pressure by rule

Combustion Chamber: Material Steel Tensile strength 26/30 Thickness of top plate 5/8"

Radius if dished Working pressure by rule 134 lbs. Thickness of back plate 5/8" Diameter if circular

Length as per rule Pitch of stays 11" x 12" Are stays fitted with nuts or riveted over

Diameter of stays over thread 1 5/8" Working pressure of back plate by rules 102 lbs.

Tube Plates: Material front Steel back Tensile strength 28/32 26/30 Thickness 11/16 5/8 Mean pitch of stay tubes in nests 9 3/4 x 6 1/2

If comprising shell, Dia. as per rule front Pitch in outer vertical rows 6 1/2 Dia. of tube holes FRONT stay 2 1/4 plain 2 1/4 BACK stay 2 1/2 plain 2 1/4

Is each alternate tube in outer vertical rows a stay tube 46. Working pressure by rules front 100 back 207

Girders to combustion chamber tops: Material Steel Tensile strength 28/32

Depth and thickness of girder at centre 6 1/4 x 7/8 (double) Length as per rule 1'-10"

Distance apart 9" No. and pitch of stays in each one Working pressure by rule 177 lbs.

Crown stays: Material ✓ Tensile strength ✓ Diameter ✓ { at body of stay, or over threads ✓
 No. of threads per inch ✓ Area supported by each stay ✓ Working pressure by rules ✓
Screw stays: Material Steel Tensile strength 26/30 Diameter 1 7/8" { at turned off part, or over threads ✓ No. of threads per inch 9
 Area supported by each stay 132 sq Working pressure by rules 115 lbs Are the stays drilled at the outer ends no.
Tubes: Material iron External diameter 2 1/4" to 2 9/16" Thickness 11 w.g. { plain stay 2 1/4" to 2 1/2"
 No. of threads per inch 9 Pitch of tubes 3 1/4" x 3 1/4" to 3 1/4" x 4 1/2" Working pressure by rules p. 140 s 242 lbs
Manhole Compensation: Size of opening in shell plate 16" x 11" Section of compensating ring 4 1/2" x 5 1/8" No. of rivets and diameter
 of rivet holes 34 - 3/16" Outer row rivet pitch at ends 4 1/2" Depth of flange if manhole flanged ✓
Uptake: External diameter ✓ Thickness of uptake plate ✓
Cross Tubes: No. ✓ External diameters ✓ Thickness of plates ✓
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description,
RILEY BROS. (BOILERMAKERS) LIMITED.
J. H. Shields Secretary.

1924
 Dates of Survey { During progress of work in shops - - Jul 29. Aug 5. Sep 8-16-26-27. Oct 3. Is the approved plan of boiler forwarded herewith Yes.
 while building { During erection on board vessel - - ✓ (If not state date of approval.)
 Total No. of visits 7

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler is a duplicate of "Melba" Riley Bros. No 5754 (Ind. Rpt No 13035)
The materials and workmanship are good.
This boiler has been built under special survey in accordance with the Rules and Approved Plan. It is being shipped to Quebec.

Survey Fee ... £ 4-4-0 When applied for, MONTHLY A/c.
 Travelling Expenses (if any) £ : : When received, 19

Committee's Minute
 Assigned Not for Classy Comm See Hpl 3E 16583
Intl 3E 3907
 Engineer Surveyor to Lloyd's Register of Shipping.
 TUES. 14 AUG 1928
 Lloyd's Register Foundation