

REPORT ON BOILERS.

Sld. No. 29666

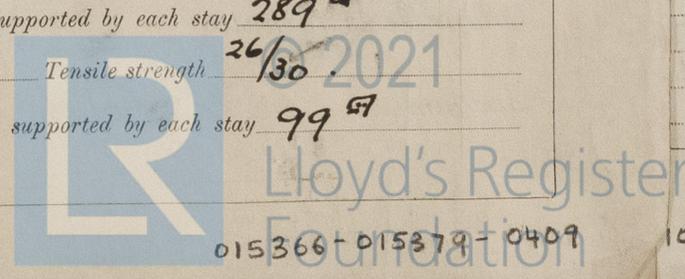
Mch. No. 1313

Received at London Office 21 NOV 1927

Date of Report 18. 11. 1927 When handed in at Local Office 18. 11. 1927. Port of MIDDLESBROUGH
 No. in Reg. Book. Survey held at STOCKTON. Date, First Survey 12. 10. 27 Last Survey 18. 11. 1927
 on the boiler for Messrs Swan Hunter & Wigham Richardson (Number of Visits 7) Tons Gross 2280 Net 1354
 S.S. S. THERESE
 Master Built at Sunderland By whom built Swan Hunter Wigham Yard No. 1327 When built 1928
 Engines made at Sunderland By whom made George Clark Ltd. Engine No. 1157 When made 1928
 Boilers made at Stockton By whom made Messrs Riley Bros. Boiler No. 5769 When made 1927
 Nominal Horse Power 224 Owners Jens Lund Esq. Port belonging to Torsberg.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville & Sons. (Letter for Record S ✓)
 Total Heating Surface of Boilers 880 sq. ft. Is forced draught fitted no. Coal or Oil fired Coal ✓
 No. and Description of Boilers One S.E. Marine Working Pressure 100 lbs ✓
 Tested by hydraulic pressure to 200 lbs. Date of test 18. 11. 27 No. of Certificate 6595. Can each boiler be worked separately
 Area of Firegrate in each Boiler 30 sq. ft. No. and Description of safety valves to each boiler Two spring loaded ✓
 Area of each set of valves per boiler per Rule 9.5" as fitted 9.8 (22 1/2 dia) Pressure to which they are adjusted 105 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 8'-0" Is oil fuel carried in the double bottom under boilers No ✓
 Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated No ✓
 Largest internal dia. of boilers 10'-0" ✓ Length 10'-0" ✓ Shell plates: Material Steel ✓ Tensile strength 28/32 ✓
 Thickness 14/32 ✓ Are the shell plates welded or flanged no. ✓ Description of riveting: circ. seams {end SR ✓
 long. seams D.R.D.B.S ✓ Diameter of rivet holes in {circ. seams 19/16" ✓ Pitch of rivets {2 1/8" ✓
 Percentage of strength of circ. end seams {plate 55.9 rivets 50.2. Percentage of strength of circ. intermediate seam {plate rivets ✓
 Percentage of strength of longitudinal joint {plate 82.2 rivets 83.1. Working pressure of shell by Rules 104 lbs. ✓
 Thickness of butt straps {outer 7/16" ✓ inner 9/16" ✓ No. and Description of Furnaces in each Boiler Two plain ✓
 Material Steel ✓ Tensile strength 26/30 ✓ Smallest outside diameter 3'-2" ✓
 Length of plain part {top 6'-3 3/4" ✓ bottom 6'-9" ✓ Thickness of plates {crown 9/32" ✓ Description of longitudinal joint weld ✓
 Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 114 lbs. ✓
 End plates in steam space: Material S ✓ Tensile strength 26/30 ✓ Thickness 3/4" ✓ Pitch of stays 14 x 14" ✓
 How are stays secured D.N.R.W. (Front) ✓ D.N.W. (Back) ✓ Working pressure by Rules 106 lbs. ✓
 Tube plates: Material {front Steel ✓ back Steel ✓ Tensile strength {26/30 ✓ Thickness {3/4" ✓
 Mean pitch of stay tubes in nests 10" ✓ Pitch across wide water spaces 13 1/2" ✓ Working pressure {front 108 lbs. back 137 lbs. ✓
 Girders to combustion chamber tops: Material Steel ✓ Tensile strength 28/32 ✓ Depth and thickness of girder
 at centre 5 3/4 x 7/8 (double) Length as per Rule 2'-4" ✓ Distance apart 9" ✓ No. and pitch of stays
 in each 2 - 8 1/2 x 9" Working pressure by Rules 100 lbs. ✓ Combustion chamber plates: Material Steel ✓
 Tensile strength 26/30 ✓ Thickness: Sides 7/8" ✓ Back 9/16" ✓ Top 7/8" ✓ Bottom 7/8" ✓
 Pitch of stays to ditto: Sides 11" x 8 1/2" ✓ Back 11" x 9" ✓ Top 9 x 8 1/2" ✓ Are stays fitted with nuts or riveted over nuts ✓
 Working pressure by Rules 104 lbs. ✓ Front plate at bottom: Material S ✓ Tensile strength 26/30 ✓
 Thickness 3/4" ✓ Lower back plate: Material Steel ✓ Tensile strength 26/30 ✓ Thickness 3/4" ✓
 Pitch of stays at wide water space 13 1/2" ✓ Are stays fitted with nuts or riveted over nuts ✓
 Working Pressure 14 1/2 lbs. ✓ Main stays: Material Steel ✓ Tensile strength 28/32 ✓
 Diameter {At body of stay, or Over threads 2 1/4" ✓ No. of threads per inch 6 ✓ Area supported by each stay 289 sq. in ✓
 Working pressure by Rules 119 lbs. ✓ Screw stays: Material Steel ✓ Tensile strength 26/30 ✓
 Diameter {At turned off part, or Over threads 1 3/8" ✓ No. of threads per inch 9 ✓ Area supported by each stay 99 sq. in ✓



Working pressure by Rules 102 lbs Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 1 7/8" or ^{Over threads} 1 7/8"
 No. of threads per inch 9 Area supported by each stay 100 Working pressure by Rules 101 lbs.
 Tubes: Material iron External diameter ^{Plain} 3 1/4" to 3 5/8" Thickness ^{10wg} 5/16" No. of threads per inch 9
 Pitch of tubes 4 1/4" x 4 3/8" Working pressure by Rules p. 130 s - 269 lbs. Manhole compensation: Size of opening in shell plate 20 x 16" Section of compensating ring 4" x 3/4" No. of rivets and diameter of rivet holes 40 - 15/16"
 Outer row rivet pitch at ends 9" Depth of flange if manhole flanged 3" 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} ^{Rivets}
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays
 How connected to shell Inner radius of crown Working pressure by Rules
 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} ^{Steel castings}
 Number of elements Material of tubes 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 23 inclusive for boilers been complied with Yes
 The foregoing is a correct description,
 J. B. Shields Secretary, RILEY BROS. (BOILERMAKERS) LIMITED, Manufacturer.

Dates of Survey ¹⁹²⁷ During progress of work in shops - - - Oct 12-15-21-24-25 Nov 16-18. Are the approved plans of boiler and superheater forwarded herewith Yes
 while building ^{During erection on board vessel - - -} Total No. of visits 7

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.
 This boiler has been satisfactorily fitted in the vessel & the safety valves adjusted under steam. For notation see machinery report.

Survey Fee £ 5-18-0 When applied for, 192
 Travelling Expenses (if any) £ : : When received, 192

MONTHLY A/c

J. B. Shields
P. J. Man
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute 17th
 Assigned See old No. 29666
 TUES. 13 MAR 1928

