

REPORT ON BOILERS.

No. 13676

Received at London Office 8 MAY 1929

Date of writing report 6.5.29. When handed in at Local Office

6.5.1929 Port of MIDDLESBROUGH.

No. in Survey held at STOCKTON

Date, First Survey 31 Jan'y/29 Last Survey

6.5.1929

9570 on the boiler for stn. trawler "RESPONDO"

(Number of Visits 14)

Gross 509 Tons Net 82

Built at Selby By whom built Lochrane & Sons Yard No. When built 1905-6
 Engines made at Hull By whom made B.D. Holmes & Co Engine No. When made 1905
 Boilers made at Stockton By whom made Riley Bros. (Boilermakers) Ltd Boiler No. 5883 When made 1929
 Nominal Horse Power 60 Owners The Esq. of Sir G. F. Sleight, Bart. Port belonging to Grimsby

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Iron Co Ltd & Veremigle Stahlwerke A.G. Stahl Walzwerke Thyssen. (Letter for Record S. ✓)

Total Heating Surface of Boilers 1125 ft² Is forced draught fitted no Coal or Oil fired Coal.

Material and Description of Boilers 15.B. Working Pressure 185 lbs.

Tested by hydraulic pressure to 328 lbs. Date of test 6.5.29. No. of Certificate 6707 Can each boiler be worked separately 330 ✓

Area of Firegrate in each Boiler 38 1/2 ft² No. and Description of safety valves to each boiler Two Spring loaded ✓

Area of each set of valves per boiler (per Rule 7.03 sq. in. as fitted 7.96) Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear 280 ✓

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 8" 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 No

Largest internal dia. of boilers 12'-3 1/16" Length 10'-0" Shell plates: Material Steel Tensile strength 29/35.

Thickness 1 1/2" Are the shell plates welded or flanged no. Description of riveting: circ. seams end D.R.

Long. seams T.R.D.B.S. (5 wide) Diameter of rivet holes in circ. seams 1 1/4" ✓ Pitch of rivets 3 5/16" ✓

Percentage of strength of circ. end seams plate 62.2 rivets 42.8 Percentage of strength of circ. intermediate seam plate 85.5 rivets 87.0 ✓

Percentage of strength of longitudinal joint plate 85.5 rivets 87.0 ✓ Working pressure of shell by Rules 186 lbs.

Thickness of butt straps (outer 3/4" ✓ inner 7/8" ✓) No. and Description of Furnaces in each Boiler 2 Plain ✓

Material Steel Tensile strength 26/30 Smallest outside diameter 3'-8"

Length of plain part (top 6'-5 7/8" ✓ bottom 7'-0 1/8" ✓) Thickness of plates (crown 11/16" ✓ bottom 11/16" ✓) Description of longitudinal joint weld.

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 190 lbs.

End plates in steam space: Material Steel ✓ Tensile strength 26/30 Thickness 31/32 ✓ Pitch of stays 18" x 15" ✓

How are stays secured D.N.v.w. Working pressure by Rules 190 lbs.

End plates: Material (front Steel back Steel) Tensile strength 26/30 Thickness 31/32 ✓

Mean pitch of stay tubes in nests 10 3/4" Pitch across wide water spaces 15" x 10" Working pressure (front 211 lbs. back 239)

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

Centre 8 1/2" x 7 1/8" (double) Length as per Rule 2'-6" Distance apart 9" No. and pitch of stays

Each 2-9 1/2" Working pressure by Rules 193 lbs. Combustion chamber plates: Material Steel

Tensile strength 26/30. Thickness: Sides 11/16" ✓ Back 11/16" ✓ Top 11/16" ✓ Bottom 1 1/16"

Pitch of stays to ditto: Sides 9" x 9 1/2" Back 9" x 9 1/4" Top 9" x 9 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 193 lbs. Front plate at bottom: Material Steel Tensile strength 26/30.

Thickness 31/32 ✓ Lower back plate: Material Steel Tensile strength 26/30. Thickness 31/32 ✓

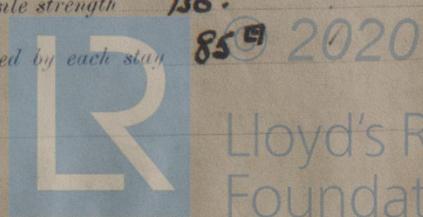
Pitch of stays at wide water space 15" x 9 1/4" ✓ Are stays fitted with nuts or riveted over nuts

Working Pressure 249 lbs. Main stays: Material Steel Tensile strength 28/32.

Diameter (At body of stay, or Over threads) 2 7/8" No. of threads per inch 6. ✓ Area supported by each stay 270

Working pressure by Rules 226 lbs. Screw stays: Material Steel Tensile strength 26/30.

Diameter (At turned off part, or Over threads) 1 3/4" No. of threads per inch 9. ✓ Area supported by each stay 85



W75-0140

Working pressure by Rules **212 lbs** Are the stays drilled at the outer ends **no**. Margin stays: Diameter ^{At turned off part,} _{or} ^{Over threads} **1 7/8"** ✓
 No. of threads per inch **9**. Area supported by each stay **106 sq** Working pressure by Rules **200 lbs**.
 Tubes: Material **iron** External diameter ^{Plain} **3 1/2" to 3 3/4"** ✓ ^{Stay} **3 1/2" to 3 3/4"** ✓ Thickness **8 w.g.** ✓ No. of threads per inch **9**.
 Pitch of tubes **5" x 5" and 5" x 6 1/2"** ✓ Working pressure by Rules **p. 215 lbs. s. 212 lbs.** ✓ Manhole compensation: Size of open shell plate **20" x 16"** ✓ Section of compensating ring **8 1/2" x 1 1/4"** No. of rivets and diameter of rivet holes **50 - 1 1/4"**
 Outer row rivet pitch at ends **7 1/2"** ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material **32 on drawing**
 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 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 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 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. D. Shields Secretary

Dates of Survey ^{During progress of work in shops - - -} **1929 Jan 31 Feb 6 11 21 Mar 18 19 20 Apr 15 11 16 24 26 May 1 6** Are the approved plans of boiler and superheater forwarded herewith **Yes**
^{During erection on board vessel - - -} _____
 Total No. of visits _____

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 fitted aboard at Quinsy.
 This boiler has now been fitted in the above vessel.
 A. Daintith
 25/7/29.

Survey Fee £ **7-10-0** | When applied for, **Monthly safe**
 Travelling Expenses (if any) £ : : | When received, 192

P. J. Mann
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **TUE. 13 AUG 1929**
 Assigned **See Gms. 76456**

