

# REPORT ON BOILERS.

No. 13676

Received at London Office 8 MAY 1929

Date of writing 6.5.29 When landed in at Local Office

6.5.29 Port of MIDDLESBROUGH.

No. in Survey held at STOCKTON

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

6.5.1929

9550 on the boiler for stn. trawler "RESPONDO"

(Number of Visits 14)

Gross 509  
Net 82

Master Built at Selby By whom built Lockhart & Sons Yard No. When built 1905-6  
Engines made at Hull By whom made C.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 ft<sup>2</sup> Is forced draught fitted no Coal or Oil fired Coal.

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 38½ ft<sup>2</sup> No. and Description of safety valves to each boiler Two spring loaded ✓

Area of each set of valves per boiler (per Rule 7.03 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 i

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 1/2" 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. 3 1/16" 6 3/8" ✓

Long. seams T.R.D.B.S. (5 wide) Diameter of rivet holes in circ. seams 1 1/4" ✓ long. seams 1 1/8" ✓ Pitch of rivets 7 3/8" ✓

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

Percentage of strength of longitudinal joint plate 85.5 rivets 87.0 combined 88.5 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 1 1/8" bottom 1 1/8" 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 3 1/2" Pitch of stays 18" x 15" ✓

How are stays secured D.N.W.L. Working pressure by Rules 190 lbs. ✓

End plates: Material front Steel Tensile strength 26/30 Thickness 3 1/2" 7/8" ✓

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

Tensile strength 26/30 Thickness: Sides 1 1/8" Back 1 1/8" Top 1 1/8" Bottom 1 1/8" ✓

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 26/30 ✓

Working pressure by Rules 193 lbs. Front plate at bottom: Material Steel Tensile strength 26/30 Thickness 3 1/2" 3 1/2" ✓

Lower back plate: Material Steel Tensile strength 26/30 Thickness 3 1/2" ✓

Pitch of stays at wide water space 15" x 9 1/4" Are stays fitted with nuts or riveted over nuts 28/32 ✓

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

Diameter At body of stay 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 1 3/4" No. of threads per inch 9 Area supported by each stay 85 ✓



Working pressure by Rules 212 lbs Are the stays drilled at the outer ends 20. 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" 16 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 1/2" No. of rivets and diameter of rivet holes 50 - 1 1/2"  
Outer row rivet pitch at ends 7 1/2" ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material 34 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  
Inner radius of crown Working pressure by Rules  
How connected to shell 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, Manufact

Dates of Survey { During progress of work in shops - - 1929 Jan 31 Feb 6 11 21 Mar 1 8 13 20 Apr 15 11 16 24 26 May 1 6  
while building { During erection on board vessel - - -  
Are the approved plans of boiler and superheater forwarded herewith Yes.  
(If not state date of approval.)  
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 1929  
Travelling Expenses (if any) £ : : When received, 192

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

Committee's Minute TUE. 13 AUG 1929  
Assigned See Gms. 16456