

REPORT ON BOILERS.

Sl. No. 32381

Mab No. 16304

APR 13 1938

Received at London Office

Date of writing Report 10 When handed in at Local Office 11-4-1938 Port of Middlesbrough

No. in Reg. Book. Survey held at Stockton on Tees. Date, First Survey 4 Nov/37 Last Survey 23 Mar 1938

on the M/V. CLIFTON HALL. (Number of Visits 8) Gross Tons 5063 Net Tons 2968

Master J. W. J. Built at Sunderland By whom built Wm. Kay & Partners Ltd. Yard No. 642 When built 1938

Engines made at Sunderland. By whom made Wm. Kay & Partners Ltd. Engine No. 642 When made 1938

Boilers made at Stockton By whom made Stockton C.E. & Co. Ltd. Boiler No. 6281 When made 1938

Nominal Horse Power 449 Owners Hunt-Hartpool Stm. Nav. Co. Ltd. Port belonging to W. Hartlepool.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland & Colvilles Ltd. (Letter for Record S.)

Total Heating Surface of Boilers 1626 Is forced draught fitted no. Coal or Oil fired Oil.

No. and Description of Boilers 1 S.B. Working Pressure 120 lbs

Tested by hydraulic pressure to 230 Date of test 23. 3. 38 No. of Certificate 6926 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two direct Spring.

Area of each set of valves per boiler per Rule 15.05 sq" Pressure to which they are adjusted 120. Are they fitted with easing gear Yes.

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 Yes (at fore & aft)

Smallest distance between shell of boiler and tank top plating 2' - 10" Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 11' - 10 7/8" Length 11' - 6" Shell plates: Material S. Tensile strength 29 lbs

Thickness 1 1/16" Are the shell plates welded or flanged no Description of riveting: circ. seams end DR

long. seams L.R.D.B.S. Diameter of rivet holes in circ. seams 1 1/16" Pitch of rivets 3 3/8" 5 7/8"

Percentage of strength of circ. end seams plate 68.5 Percentage of strength of circ. intermediate seam plate 84.9

Percentage of strength of longitudinal joint rivets 45.6 Working pressure of shell by Rules 123 lbs

Thickness of butt straps outer 9/16" No. and Description of Furnaces in each Boiler 2 Cf

Material 3. Tensile strength 26 - 30. Smallest outside diameter 3' - 8 1/2" 3' - 8 1/2"

Length of plain part top 1 1/2" Thickness of plates bottom 1 1/2" Description of longitudinal joint weld.

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 121 lbs

End plates in steam space: Material S. Tensile strength 26 - 30. Thickness 27/32. Pitch of stays 17" x 16"

How are stays secured D N Y W. Working pressure by Rules 142 lbs

Tube plates: Material front Steel. Tensile strength 26/30. Thickness 27/32. Working pressure front 157

Mean pitch of stay tubes in nests 9 7/8" Pitch across wide water spaces 14" Working pressure back 249.

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

at centre 7" x 1 1/2" Length as per Rule 30 1/2" Distance apart 9" No. and pitch of stays

in each 20 9 1/2" Working pressure by Rules 126 lbs Combustion chamber plates: Material S.

Tensile strength 26 - 30. Thickness: Sides 19/32" Back 9/16" Top 19/32" Bottom 7/8"

Pitch of stays to ditto: Sides 9 x 9 7/8" Back 9 1/4" x 8 3/4" Top 9 x 9 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 129 lbs Front plate at bottom: Material S. Tensile strength 26 - 30.

Thickness 27/32" Lower back plate: Material S. Tensile strength 26 - 30. Thickness 27/32"

Pitch of stays at wide water space 13 1/2" x 9 1/4" Are stays fitted with nuts or riveted over nuts

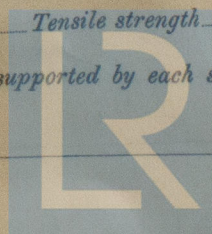
Working Pressure 201 lbs Main stays: Material S. Tensile strength 28 - 32.

Diameter At body of stay 2 1/4" No. of threads per inch 6 Area supported by each stay 288

Working pressure by Rules 120 Screw stays: Material S. Tensile strength 26 - 30.

Diameter At turned off part 1 3/8" No. of threads per inch 9 Area supported by each stay 84

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Working pressure by Rules 120 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 sq" Working pressure by Rules 152 lbs
 Tubes: Material Superheater iron External diameter { Plain 2 3/4" Thickness { 8 W 4 No. of threads per inch 9
 Stay 2 3/4" Working pressure by Rules 276 lbs Manhole compensation: Size of opening
 Pitch of tubes 3 3/4" 3 3/4" Section of compensating ring 7"x1" No. of rivets and diameter of rivet holes 44 1 5/16"
 shell plate 20"x16" Depth of flange if manhole flanged
 Outer row rivet pitch at ends 6 7/8" Tensile strength Thickness of shell Description of longitudinal joint
 Pitch of rivets Percentage of strength of joint { Plate Rivets
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter
 stays Inner radius of crown Working pressure by Rules Diameter of rivet holes and pitch
 How connected to shell Size of doubling plate under dome
 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 a
 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 p
 Rules Pressure to which the safety valves are adjusted Hydraulic test pressure
 tubes, castings and after assembly in place Are drain cocks or valves fit
 to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

yes and on behalf of
 The foregoing is a correct description of the boiler.
 J. H. Riley, Manufacturer

Dates of Survey { During progress of work in shops - - 1937 Nov 4 19 28 1938 Feb 3 Mar 4 16 17 23 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 while building { During erection on board vessel - - - Total No. of visits 8

Is this Boiler a duplicate of a previous case If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed under special survey in accordance with the approved plans and the requirements of the Rules. The materials & workmanship are good & the boiler was found satisfactory under hydraulic pressure 230 lbs. The boiler has been forwarded to Sunderland.

This boiler has been securely fixed on board the vessel examined under steam & safety valves adjusted in accordance with Rule requirements.

For recommendation Please See Mem. Rpt.

J. H. Riley

Survey Fee ... £ 10 : 16 : 0 When applied for, 12. 4. 1938
 Travelling Expenses (if any) £ : : When received, 21. 7. 1938

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 24 MAY 1938

Assigned

See Std. J.C. 32381



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