

REPORT ON BOILERS.

Received at London Office 21 APR 1928

Date of writing Report 1928 When handed in at Local Office 1928 Port of WEST HARTLEPOOL

No. in Surrey held at Hartlepool Date First Survey 26 May 1928 Last Survey 1 April 1928

10020 on the M.V. "BRITISH RENOWN" (Number of Visits) Gross Tons Net

Master Built at Sunderland By whom built Sir J. Laing Sons Yard No. 700. When built 1928

Engines made at Hartlepool By whom made Richardson's Westgate 16th Engine No. 2659 When made 1928

Boilers made at Hartlepool By whom made Richardson's Westgate 16th Boiler No. 2659 When made 1928

Nominal Horse Power 106 Owners Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville Sons Ltd (Letter for Record S. ✓)

Total Heating Surface of Boiler 1595⁵ Is forced draught fitted Yes ✓ Coal or Oil fired oil ✓

No. and Description of Boilers one single Endes. Working Pressure 150 ✓

Tested by hydraulic pressure to 245 Date of test 30.6.24 No. of Certificate 3703 Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 Direct Spring ✓

Area of each set of valves per boiler { per Rule 14.49" as fitted 16.59" Pressure to which they are adjusted 155 lb. 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 no

Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated ✓

Largest internal dia. of boiler 11.6" Length 11.6" Shell plates: Material S ✓ Tensile strength 28/32 ✓

Thickness 27/32" Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams { end D.R. ✓ inter. ✓

Long. seams D.R.D.B.S. ✓ Diameter of rivet holes in { circ. seams 1 1/32" ✓ long. seams 1 1/32" ✓ Pitch of rivets { 3 1/4" ✓ 5 5/8" ✓

Percentage of strength of circ. end seams { plate 68.3 rivets 60.5 Percentage of strength of circ. intermediate seam { plate 81.6 rivets ✓

Percentage of strength of longitudinal joint { plate 81.6 rivets 81.4 Working pressure of shell by Rules 152

Thickness of butt straps { outer 11/16" inner 9/16" No. and Description of Furnaces in each Boiler 2 Morrison ✓

Material S ✓ Tensile strength 26/30 Smallest outside diameter 3.1 3/8" ✓

Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 7/16" bottom 7/16" Description of longitudinal joint weld ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 164

End plates in steam space: Material S ✓ Tensile strength 26/30 Thickness 1 1/32" Pitch of stays 21 1/2" x 13 3/4" ✓

How are stays secured Double nuts ✓ Working pressure by Rules 151

Tube plates: Material { front S back S ✓ Tensile strength 26/30 Thickness { 13/16" 4/16" ✓

Lean pitch of stay tubes in nests 7 1/4" x 11 1/4" Pitch across wide water spaces 13 1/2" ✓ Working pressure { front 164 back 191

Girders to combustion chamber tops: Material S ✓ Tensile strength 26/30 Depth and thickness of girder

centre 7 1/4" x 1 5/8" ✓ Length as per Rule 2.5 13/32" Distance apart 9 1/4" ✓ No. and pitch of stays

each 3 7" Working pressure by Rules 154 Combustion chamber plates: Material S ✓

Tensile strength 26/30 Thickness: Sides 9/16" Back 19/32" Top 9/16" Bottom 9/16" ✓

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

Working pressure by Rules 154 Front plate at bottom: Material S ✓ Tensile strength 26/30

Thickness 13/16" Lower back plate: Material S ✓ Tensile strength 26/30 Thickness 9/16" ✓

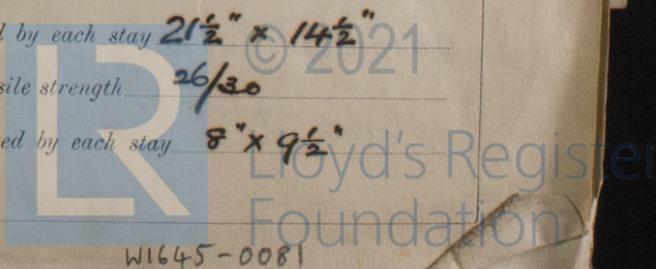
Pitch of stays at wide water space 13 1/2" x 8" Are stays fitted with nuts or riveted over nuts

Working Pressure 184 Main stays: Material S ✓ Tensile strength 28/32

Diameter { At body of stay, 2 1/2" + 2 5/8" No. of threads per inch 6 Area supported by each stay 21 1/2" x 14 1/2" ✓

Working pressure by Rules 150 Screw stays: Material S ✓ Tensile strength 26/30

Diameter { At turned off part, 1 1/2" No. of threads per inch 9 Area supported by each stay 8" x 9 1/2" ✓



Working pressure by Rules **165** Are the stays drilled at the outer ends **no** Margin stays: Diameter { At turned off part, **1 5/8"** or Over threads

No. of threads per inch **9** Area supported by each stay **11 1/2" x 8"** Working pressure by Rules **164**

Tubes: Material **Iron** External diameter { Plain **2 1/2"** Stay **2 1/2"** Thickness { **10 W.C.** **1/4"** **5/16"** **3/8"** No. of threads per inch **9**

Pitch of tubes **3 3/4" x 3 5/8"** Working pressure by Rules **175 P. 180 stay** Manhole compensation: Size of opening in shell plate **12" x 16"** Section of compensating ring **10 15/16" x 7/8"** No. of rivets and diameter of rivet holes **28 1 3/32"**

Outer row rivet pitch at ends **5 5/8"** Depth of flange if manhole flanged _____ 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 _____ Inner radius of crown _____ Working pressure by Rules _____

How connected to shell _____ 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 _____

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: _____

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,
For RICHARDSONS, WESTGARTH & Co. LIMITED Manufacturer

Dates of Survey { During progress of work in shops - - - } **All machinery repol** Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) **yes**

{ During erection on board vessel - - - } Total No. of visits _____

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

This boiler has been built under Special Survey. The materials and workmanship are good and efficient. It has been fitted and secured on board, examined under full steam, and its safety valves adjusted.

Survey Fee ... £ **10 : 12 : 0** } When applied for, **23.4** 1928

Travelling Expenses (if any) £ : _____ } When received, **27.4** 1928

Robert Rae, R.D. Shilston
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUE 1 MAY 1928**

Assigned *see Rpt. attached*

