

REPORT ON BOILERS.

No. 47308

Received at London Office 23 NOV 1927

Date of writing Report Jan 17 1928 When handed in at Local Office Jan 17 1928 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 7. 2. 27 Last Survey 21-11-27 1927

on the new steel S/S WESTBURY (Number of Visits 37) Gross Tons 411 Net Tons 371

Master Burntisland Built at Burntisland By whom built Burntisland SBCo Yard No. 142 When built 1927

Engines made at Glasgow By whom made David Rowan & Co Ltd Engine No. 863 When made 1927

Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 863 When made 1927

Nominal Horse Power 180 Owners Capper Alexander Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Augsust Thyssen Hütte Gewerkschaft of Hülheim Rühr (Letter for Record (S) ☒)

Total Heating Surface of Boilers 7107 sq ft Is forced draught fitted yes Coal or Oil fired coal

No. and Description of Boilers Three single ended Working Pressure 180

Tested by hydraulic pressure to 320 Date of test 31-10-27 No. of Certificate 17659 Can each boiler be worked separately yes

Area of Firegrate in each Boiler 53 1/2 sq ft No. and Description of safety valves to each boiler two, direct spring

Area of each set of valves per boiler per Rule 15.18 Pressure to which they are adjusted 185 lb/sq in Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler none fitted

Smallest distance between boilers or uptakes and bunkers or woodwork 18" Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated yes

Largest external dia. of boilers 15'-0" Length 11'-6" Shell plates: Material steel Tensile strength 28-32 tons

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

Long. seams DRS. TR Diameter of rivet holes in circ. seams F 13/16 B 1 1/4 Pitch of rivets F 3.19 B 3.48

Percentage of strength of circ. end seams plate F 62.7 B 64 rivets F 46.8 B 47.7 Percentage of strength of circ. intermediate seam plate rivets 86.01

Percentage of strength of longitudinal joint plate 86.8 rivets 89.4 combined Working pressure of shell by Rules 183

Thickness of butt straps outer 2 3/8" inner 1 1/2" No. and Description of Furnaces in each Boiler Three Deighton

Material steel Tensile strength 26-30 tons Smallest outside diameter 43.84"

Length of plain part top Thickness of plates crown 3/8" bottom 5/16" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 180

End plates in steam space: Material steel Tensile strength 26-30 tons Thickness 1 1/4" Pitch of stays 20 1/2" x 19 3/4"

How are stays secured DN Working pressure by Rules 180

End plates: Material front steel back " Tensile strength 26-30 tons Thickness 2 1/8" front 207 back 187

Can pitch of stay tubes in nests 10.25" Pitch across wide water spaces 13 1/2" Working pressure front 207 back 187

Orders to combustion chamber tops: Material steel Tensile strength 28-32 tons Depth and thickness of girder

Centre 2 @ 9 3/4" x 1 1/8" Length as per Rule 34.61" Distance apart 11 1/8" No. and pitch of stays

Each 3 @ 8 1/4" Working pressure by Rules 182 Combustion chamber plates: Material steel

Tensile strength 26-30 tons Thickness: Sides 4 1/4" Back 2 1/2" Top 4 1/4" Bottom 4 1/4"

Pitch of stays to ditto: Sides 8 1/4" x 11 1/8" Back 8 1/4" x 10" Top 8 1/4" x 11 1/8" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 180 Front plate at bottom: Material steel Tensile strength 26-30 tons

Thickness 2 1/8" Lower back plate: Material steel Tensile strength 26-30 tons Thickness 3/4"

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

Working Pressure 183 Main stays: Material steel Tensile strength 28-32 tons

Grip meter At body of stay, 3" & 2 3/4" No. of threads per inch 6 Area supported by each stay 418 sq in & 362 sq in

Working pressure by Rules 188 & 182 Screw stays: Material steel Tensile strength 26-30 tons

Grip meter At turned off part, 1 5/8" No. of threads per inch 9 Area supported by each stay 81.2 sq in

Working pressure by Rules 187 Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part, or Over threads 1 3/4" ✓
No. of threads per inch 9 Area supported by each stay 95.40" Working pressure by Rules 190
Tubes: Material Iron ✓ External diameter { Plain 2 1/2" ✓ Stay 2 1/2" ✓ Thickness { 9 W.S. ✓ 5/16" 3/8" 7/16" ✓ No. of threads per inch 9 ✓
Pitch of tubes 3 5/8" x 3 3/4" Working pressure by Rules 230 Manhole compensation: Size of opening
shell plate 15 1/2" x 19 1/2" Section of compensating ring 7 1/2" x 13 1/2" No. of rivets and diameter of rivet holes 32 @ 1 5/16" ✓
Outer row rivet pitch at ends 9 1/4" ✓ Depth of flange if manhole flanged 3" Steam Dome: Material none
Tensile strength 55,000 Thickness of shell 1/2" Description of longitudinal joint
Diameter of rivet holes 5/8" Pitch of rivets 1 1/2" Percentage of strength of joint { Plate 90% Rivets 80%
Internal diameter 55 1/2" Working pressure by Rules 190 Thickness of crown 1/2" No. and diameter of stays 4 @ 1 1/2"
Inner radius of crown 15" Working pressure by Rules 190
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 none 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,
For David Rowland & Co. Ltd. Manufactured by Arch. H. Grierson

Dates of Survey { During progress of work in shops - - - See Accompanying Machinery Report
while building { During erection on board vessel - - -
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
Total No. of visits 37

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The materials and workmanship are good.
The boilers have been constructed under special Survey in accordance with the Rules.

To be fitted on board at Barataria
The boilers have been securely fitted on board, examined under steam & found in order

Survey Fee ... £ See Machinery Rpt. When applied for, 192
Travelling Expenses (if any) £ When received, 192

Clive Bell
S. C. Davis
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 22 NOV 1927

Assigned Defered
See minute on hth Rpt 3/4
19316 attached L

