

REPORT ON BOILERS.

No. 13353

5 JUL 1928

Received at London Office

Date of writing Report 4. 7. 1928 When handed in at Local Office 4. 7. 1928 Port of MIDDLESBROUGH

No. in Survey held at STOCKTON Date, First Survey See Navy Report Last Survey 3. 7. 1928

1684 Sup. on the sc. "LLANFAIR" (Number of Visits ✓) Tons { Gross
Net

Master Built at Sunderland By whom built Barham & Sons Yard No. 263 When built 1928

Engines made at Stockton By whom made Blair & Co (1926) Ltd. Engine No. 1978 When made 1928

Boilers made at do. By whom made do. Boiler No. 1978 When made 1928

Nominal Horse Power Owners Wimborne S.S. Co. Ltd. Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

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

Heating Surface of Boilers 4914 ft. Is forced draught fitted no ✓ Coal or Oil fired coal ✓

and Description of Boilers 3 S.B. Working Pressure 180 lbs. ✓

Tested by hydraulic pressure to 320 lbs. Date of test 18. 5. 28 No. of Certificate 6638. Can each boiler be worked separately Yes ✓

Area of Firegrate in each Boiler 65.6 ft. No. and Description of safety valves to each boiler Pair Cockburns High Lift

Area of each set of valves per boiler { per Rule 11.27 ✓
as fitted 11.88 ✓ Pressure to which they are adjusted 185 lbs. 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 on upstokes and bunkers on woodwork 4'-3" Is oil fuel carried in the double bottom under boilers no ✓

Smallest distance between shell of boiler and tank top plating 3'-6" Is the bottom of the boiler insulated no ✓

Greatest internal dia. of boilers 15'-9 7/16" Length 11'-6" Shell plates: Material Steel Tensile strength 28/32 ✓

Thickness 1 9/32" Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams { end D.R. ✓
inter. ✓

Seams T.R.D.B.S. Diameter of rivet holes in { circ. seams 1 3/8" ✓
long. seams 1 7/16" ✓ Pitch of rivets { 4 1/4" ✓
9 5/16" ✓

Percentage of strength of circ. end seams { plate 67.6 ✓
rivets 44.7 ✓ Percentage of strength of circ. intermediate seam { plate ✓
rivets ✓

Percentage of strength of longitudinal joint { plate 85.9 ✓
rivets 86.6 ✓ Working pressure of shell by Rules 180 lbs. ✓
combined 89.1 ✓

Thickness of butt straps { outer 1" ✓
inner 1 1/8" ✓ No. and Description of Furnaces in each Boiler 3 Corrugated Ref. ✓

Material Steel Tensile strength 26/30 ✓ Smallest outside diameter 44 1/2" ✓

Thickness of plain part { top ✓ Thickness of plates { crown 3 1/2" ✓
bottom ✓ bottom 6 1/4" ✓ Description of longitudinal joint weld ✓

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

Plates in steam space: Material Steel Tensile strength 26/30 ✓ Thickness 1 3/16" ✓ Pitch of stays 19 1/4" x 20 1/2" ✓

Are stays secured D.N.W. ✓ Working pressure by Rules 199 lbs. ✓

Plates: Material { front Steel Tensile strength { 26/30 ✓
back Steel Thickness { 1 1/16" ✓
1 3/16" ✓

Pitch of stay tubes in nests 11 3/32" Pitch across wide water spaces 14 1/2" x 9 3/4" ✓ Working pressure { front 185 lbs. ✓
back 193 lbs. ✓

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

Centre 8" x 15" (double) Length as per Rule 33 3/4" Distance apart 9" ✓ No. and pitch of stays

Chamber 3 - 8 1/2" Working pressure by Rules 186 lbs. ✓ Combustion chamber plates: Material Steel ✓

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

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

Working pressure by Rules 187 lbs. ✓ Front plate at bottom: Material Steel Tensile strength 26/30 ✓

Thickness 1 5/16" ✓ Lower back plate: Material Steel Tensile strength 26/30 ✓ Thickness 2 9/32" ✓

Of stays at wide water space 14" x 9" ✓ Are stays fitted with nuts or riveted over nuts ✓

Working Pressure 244 lbs. ✓ Main stays: Material Steel Tensile strength 28/32 ✓

At body of stay, 3 3/8" ✓ No. of threads per inch 6 ✓ Area supported by each stay 379 sq ✓

Over threads ✓ ✓ Screw stays: Material Steel Tensile strength 26/30 ✓

Working pressure by Rules 195 lbs. ✓ No. of threads per inch 8 ✓ Area supported by each stay 87 sq ✓

At turned off part, 1 3/4" ✓

Working pressure by Rules 205 lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8"
 No. of threads per inch 8 Area supported by each stay 106 sq Working pressure by Rules 195 lb
 Tubes: Material iron External diameter { Plain 3 1/2" Thickness { 8 W.G. No. of threads per inch 9
 Stay 3 1/2" Pitch of tubes 4 3/4" x 4 7/8" Working pressure by Rules p. 215 S. 201 lbs Manhole compensation: Size of opening in
 shell plate 16" x 12" Section of compensating ring 8" x 1 9/32" No. of rivets and diameter of rivet holes 28 - 1 7/16"
 Outer row rivet pitch at ends 9 7/16" 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 _____ 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 _____

The foregoing is a correct description,
 For BLAIR & CO. (1926) LIMITED.

Dates { During progress of
 of Survey { work in shops - - }
 while { During erection on
 building { board vessel - - - }

See Machinery
 Report

Are the approved plans of boiler and superheater forwarded herewith
 (If not state date of approval.)
 Total No. of visits ✓

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

These boilers are duplicate of Messrs Blair's No 1969 - Inst. Rpt 13290.
 They have been built under special survey in accordance with
 the Rules and approved Plan and have been securely fitted
 aboard and their safety valve have been adjusted and tested
 under steam with satisfactory results.

The materials and workmanship are good.

Survey Fee ... £
 Travelling Expenses (if any) £

See Machinery
 Report

When applied for, 192
 When received, 192

A. J. Mann

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 10 JUL 1928

Assigned

See Rpt. attached



© 2019
 Lloyd's Register
 Foundation