

REPORT ON BOILERS.

No. 13290

3 MAY 1928

Received at London Office

Date of writing Report

2. 5. 1928

When handed in at Local Office

2. 5. 1928

Port of

MIDDLESBROUGH.

No. in Survey held at
Reg. Book.

STOCKTON

Date, First Survey

See Mchyllepal

Last Survey

28. 4. 1928.

654. Sp. on the

Sc. "LLANDILO"

(Number of Visits

Tons {
Gross
Net

Master

Built at Sundelana.

By whom built Barham & Sons.

Yard No. 262. When built 1928.

Engines made at

Stockton

By whom made

Blair & Co (1926) Ltd

Engine No. 1969 When made 1928.

Boilers made at

do.

By whom made

do.

Boiler No. 1969 When made 1928.

Nominal Horse Power

Owners Gwentlian 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. ✓)

Total Heating Surface of Boilers

7917 ft² ✓

Is forced draught fitted no

Coal or Oil fired Coal. ✓

No. and Description of Boilers

3 S.B.

Working Pressure 180 lbs.

Tested by hydraulic pressure to

320 lbs.

Date of test

4. 3. 28.

No. of Certificate

6623.

Can each boiler be worked separately 4/2. ✓

Area of Firegrate in each Boiler

65.6 ft² ✓

No. and Description of safety valves to each boiler

Pain 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 4/2. ✓

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

Smallest distance between boilers ~~on uptakes~~ 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.

Largest 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. ✓

Long. 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" ✓

Percentage of strength of circ. end seams

plate

67.6.

rivets

44.7.

Percentage of strength of circ. intermediate seam

plate

85.9

rivets

86.6

Percentage of strength of longitudinal joint

plate

85.9

rivets

86.6

combined

89.1

Working pressure of shell by Rules

180 lbs.

Thickness of butt straps

outer

1" ✓

inner

1 1/2" ✓

No. and Description of Furnaces in each Boiler

3 Corrugated ✓

Material

Steel

Tensile strength

26/30 ✓

Smallest outside diameter

44 9/32" ✓

Length of plain part

top

✓

bottom

✓

Thickness of plates

crown

37" ✓

bottom

64" ✓

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

1 3/16" ✓

Pitch of stays

19 1/4" x 20 1/2" ✓

How are stays secured

D.N.W. ✓

Working pressure by Rules

199 lbs.

End plates: Material

front

Steel

back

Tensile strength

26/30 ✓

Thickness

1 1/16" ✓

Can 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.

Orders 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

each

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 3/16" ✓

Pitch of stays to ditto: Sides

9" x 8 3/4" ✓

Back

9 1/4" 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

29/32" ✓

Pitch 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 ✓

Pitch of stays

At body of stay,

3 3/8" ✓

Over threads

No. of threads per inch

6 ✓

Area supported by each stay

379" ✓

Working pressure by Rules

195 lbs.

Screw stays: Material

Steel

Tensile strength

26/30 ✓

Pitch of stays

At turned off part,

1 3/4" ✓

Over threads

No. of threads per inch

8 ✓

Area supported by each stay

87" ✓

W191-0035

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Foundation

Working pressure by Rules 205 lbs Are the stays drilled at the outer ends no. Margin stays: Diameter 1 7/8" (At turned off part, or Over threads)
 No. of threads per inch 8 Area supported by each stay 106 sq Working pressure by Rules 195 lbs.
 Tubes: Material iron External diameter 3 1/2" Thickness 9/16" No. of threads per inch 9
 Pitch of tubes 4 3/4" x 4 7/8" Working pressure by Rules p. 215 & 201 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 1/16"
 Outer row rivet pitch at ends 9 7/16" Depth of flange if manhole flanged
 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
 Number of elements Material of tubes Steel castings 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 BLAIR & CO. (1926) LIMITED.

SECRETARY.

Dates of Survey (During progress of work in shops - - -)
 while building (During erection on board vessel - - -)

See Machinery
 Lipat

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.)

The materials and workmanship are good
 These boilers have been built under special survey in accordance with the Rules and approved Plan, namely fitted aboard and their safety valves have been adjusted and tested under steam with satisfactory results.

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

See
 machy.
 repat.

When applied for, 192
 When received, 192

A. J. Man.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 8 MAY 1928

Assigned

See Std. S. 2. 11 No 29707



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