

Rpt. 5a.

REPORT ON BOILERS.

No. 5162

attached N^o 45332

Received at London Office

18 NOV. 1925
27 JAN. 1926

Date of writing Report

192

When handed in at Local Office

192

Port of

Glasgow

No. in
Reg. Book.

on the

Glasgow

SS Scillonian

Date, First Survey 14-8-25

Last Survey 3-11-

1925

(Number of Visits 8)

Gross

429.

Net

179.

Master

Built at Troon

By whom built

Ailsa S B Co Ltd

Yard No. 396

When built 1925

Engines made at

Troon

By whom made

Ailsa S B Co Ltd

Engine No. -131

When made 1926

Boilers made at

Glasgow

By whom made

Barnsleyburn & Co Ltd

Boiler No. Ailsa

When made 1925

Nominal Horse Power

Owners

Jas of Lillie Rd. Ltd.

Port belonging to

Lillie

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record (S) ✓)

Total Heating Surface of Boilers

2171 sq ft.

Is forced draught fitted

no

Coal or Oil fired ✓

No. and Description of Boilers

one single ended, marine ✓

Working Pressure 180 ✓

Tested by hydraulic pressure to

320 ✓

Date of test

3-11-25

No. of Certificate 16969

Can each boiler be worked separately ✓

Area of Firegrate in each Boiler

64 sq ft.

No. and Description of safety valves to each boiler ✓

Area of each set of valves per boiler

{ per Rule -
as fitted -

Pressure to which they are adjusted ✓

Are they fitted with easing gear ✓

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 ✓

Smallest distance between shell of boiler and tank top plating -

Is the bottom of the boiler insulated ✓

Largest internal dia. of boilers

15'3" ✓

Length

10'9" ✓

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 { end OR lap ✓
inter. ✓

long. seams

DBS. TR ✓

Diameter of rivet holes in { circ. seams 1 5/16" ✓
long. seams 1 1/8" ✓Pitch of rivets { 3.709" ✓
9 1/8" ✓Percentage of strength of circ. end seams { plate 64.6
rivets 47.96Percentage of strength of circ. intermediate seam { plate
rivetsPercentage of strength of longitudinal joint { plate 85.61
rivets 91.27
combined 89.47

Working pressure of shell by Rules 180

Thickness of butt straps { outer 3 1/2" ✓
inner 3 1/2" ✓

No. and Description of Furnaces in each Boiler

Three Deighton Corrugated.

Material

steel ✓

Tensile strength 26-30 tons ✓

Smallest outside diameter 45.65" ✓

Length of plain part { top ✓
bottom ✓Thickness of plates { crown 3 3/4" ✓
bottom 6 1/4" ✓

Description of longitudinal joint welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓

Working pressure of furnace by Rules 194

End plates in steam space: Material

steel ✓

Tensile strength 26-30 tons

Thickness 1 3/16" ✓

Pitch of stays 17" x 20 1/2"

How are stays secured

D.N. ✓

Working pressure by Rules 185

Tube plates: Material { front steel ✓
back steel ✓Tensile strength { 26-30 tons ✓
26-30 tons ✓Thickness { 5 1/4" ✓
2 1/2" ✓Working pressure { front 184
back 185

Mean pitch of stay tubes in nests

11 3/4" ✓

Pitch across wide water spaces

14 1/2" ✓

Working pressure { front 184
back 185

Girders to combustion chamber tops: Material

steel ✓

Tensile strength 28-32 tons

Depth and thickness of girder

at centre

2 @ 9 5/8" x 1 1/8" ✓

Length as per Rule

32 1/2" ✓

Distance apart 10 1/8" ✓

No. and pitch of stays

in each

3 @ 8" ✓

Working pressure by Rules 187

Combustion chamber plates: Material

steel ✓

Tensile strength

26-30 tons ✓

Thickness: Sides 2 1/2" ✓

Back 2 1/2" ✓

Top 2 1/2" ✓

Bottom 3/4" ✓

Pitch of stays to ditto: Sides

8" x 10 1/8" ✓

Back 8" x 10" ✓

Top 8" x 10 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

5 1/4" ✓

Lower back plate: Material

steel ✓

Tensile strength 26-30 tons

Thickness 2 5/8" ✓

Pitch of stays at wide water space

14 1/2" x 8" ✓

Are stays fitted with nuts or riveted over nuts ✓

Working Pressure

180

Main stays: Material

steel ✓

Tensile strength 28-32 tons

Diameter { At body of stay, } 3" ✓

Over threads

No. of threads per inch 6 ✓

Area supported by each stay 310 sq"

Working pressure by Rules

216

Screw stays: Material

steel ✓

Tensile strength 26-30 tons

Diameter { At turned off part, } 1 5/8" ✓

or
Over threads

No. of threads per inch 9 ✓

Area supported by each stay 810

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Working pressure by Rules 187 Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, 1 3/4" Over threads }
 No. of threads per inch 9 Area supported by each stay 980" Working pressure by Rules 185
 Tubes: Material *Iron* External diameter { Plain 3 1/2" Stay 3 1/2" } Thickness { 8 w.g. 3/8" & 5/16" } No. of threads per inch 9
 Pitch of tubes 4 3/4" x 4 5/8" Working pressure by Rules 215 Manhole compensation: Size of opening in shell plate 16" x 20" Section of compensating ring 11" x 1 1/2" flanged No. of rivets and diameter of rivet holes 40 @ 1 5/16"
 Outer row rivet pitch at ends 9 1/8" Depth of flange if manhole flanged 4 1/2" Steam Dome: Material *none*
 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 *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

The foregoing is a correct description,
J. Malagan Manufacturer.
 FOR BARCLAY, CURLE & CO., LTD.

Dates of Survey { During progress of work in shops - - - 1925 Aug 14, Sep 3 & 24 & 29/10-19 } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 while building { During erection on board vessel - - - Nov 23 }
 Total No. of visits 8

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The materials and workmanship are good.
The boiler has been constructed under special survey in accordance with the Rules.
The boiler has been securely fitted on board the vessel and tried under steam with satisfactory results D.C.B.

Survey Fee ... £ 14 : 10 : - When applied for 17 NOV 1925
 Travelling Expenses (if any) £ - : - : When received 30/12/1925
L. Schanis
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 NOV 1925 GLASGOW 26 JAN 1926
 Assigned TRANSMIT TO LONDON See G.L. Rpt. No. 45332
 W.S.M.
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SC 16-11-25