

## REPORT ON BOILERS.

No. 54981

13 OCT 1934

Received at London Office

Date of writing Report

19

When handed in at Local Office

21. 9. 1934

Port of

Glasgow

No. in Survey held at  
Reg. Book.

Glasgow

Date, First Survey

15. 3. 34

Last Survey

20. 9. 1934

(Number of Visits

61

Gross

5452

Tons

Net 3259

on the

new steel

S/S LOCH LOMOND

Built at

Glasgow

By whom built

D &amp; W. Henderson &amp; Co. Ltd.

Yard No.

931

When built

1934

s made at

Glasgow

By whom made

D &amp; W. Henderson &amp; Co. Ltd.

Engine No.

931

When made

1934

s made at

Glasgow

By whom made

D &amp; W. Henderson &amp; Co. Ltd.

Boiler No.

931

When made

1934

al Horse Power

Owners

MacLay &amp; Mac Intyre Ltd.

Port belonging to

Glasgow

## TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Facturers of Steel

6 Shillies Ltd.

(Letter for Record (S) ✓)

Heating Surface of Boilers

5679 ft

Is forced draught fitted

yes

Coal or Oil fired

coal

nd Description of Boilers

Three single ended

Working Pressure

220

by hydraulic pressure to

380

Dates of tests

S-8634  
C-156-54  
P-67-34

No. of Certificate

S-19382  
C-19389  
P-19406

Can each boiler be worked separately

yes

of Firegrate in each Boiler

42 ft

No. and Description of safety valves to each boiler

2. Improved high lift

of each set of valves per boiler

as fitted 6.280"

Pressure to which they are adjusted

225

Are they fitted with easing gear

yes

e of donkey boilers, state whether steam from main boilers can enter the donkey boiler

-

est distance between boilers or uptakes and bunkers or woodwork

15"

Is oil fuel carried in the double bottom under boilers

no

est distance between shell of boiler and tank top plating

2'-0"

Is the bottom of the boiler insulated

yes

st internal dia. of boilers

14'-9"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

29-33 tons

ess

1'-6"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end DR

seams

DR S. OR

Diameter of rivet holes in

circ. seams 1 1/2"

long. seams 1 1/2"

Pitch of rivets

3'-8"

ntage of strength of circ. end seams

plate 60.5  
rivets 51.7

Percentage of strength of circ. intermediate seam

plate

ntage of strength of longitudinal joint

plate 85.1  
rivets 91  
combined 88.2

Working pressure of shell by Rules

220

ess of butt straps

outer 1 3/32"

inner 1 1/32"

No. and Description of Furnaces in each Boiler

Three Deighton

ial

Steel

Tensile strength

26-30 tons

Smallest outside diameter

3'-7 1/8"

e of plain part

top

bottom

Thickness of plates

crown 2 3/32"

bottom 1 3/32"

Description of longitudinal joint

welded

ions of stiffening rings on furnace or c.c. bottom

-

Working pressure of furnace by Rules

222

lates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 9/32"

Pitch of stays

18"x20"

ure stays secured

ON

Working pressure by Rules

223

plates: Material

front Steel

back Steel

Tensile strength

26-30 tons

Thickness

2 9/32"

7/8"

pitch of stay tubes in nests

8 7/8"

Pitch across wide water spaces

17 1/4"

Working pressure

front 230

back 220

rs to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons

Depth and thickness of girder

tre

2 @ 12"x7/8"

Length as per Rule

46'-4"

Distance apart

9"

No. and pitch of stays

h

4 @ 9"

Working pressure by Rules

222

Combustion chamber plates: Material

Steel

e strength

26-30 tons

Thickness: Sides

2 3/32"

Back

2 3/32"

Top

2 3/32"

Bottom

7/8"

of stays to ditto: Sides

9"x9"

Back

9"x9"

Top

9"x9"

Are stays fitted with nuts or riveted over

nuts

ng pressure by Rules

224

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

ess

2 9/32"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/4"

of stays at wide water space

17 1/4"

Are stays fitted with nuts or riveted over

nuts

ng Pressure

225

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay,

3 1/8"

Over threads

No. of threads per inch

6

Area supported by each stay

3600"

Working pressure by Rules

238

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

1 3/4"

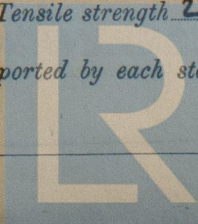
Over threads

No. of threads per inch

9

Area supported by each stay

310"

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Foundation



Working pressure by Rules 224 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 2 1/8" ✓  
No. of threads per inch 9 Area supported by each stay \_\_\_\_\_ Working pressure by Rules 240 ✓  
Tubes: Material steel External diameter { Plain 3 1/2" ✓ Thickness { 5/8" ✓ No. of threads per inch 9 ✓  
Pitch of tubes 4 1/2" x 4 3/8" Working pressure by Rules 230 Manhole compensation: Size of opening in  
shell plate 16 x 12 Section of compensating ring - No. of rivets and diameter of rivet holes \_\_\_\_\_  
Outer row rivet pitch at ends \_\_\_\_\_ Depth of flange if manhole flanged 4" ✓ Steam Dome: Material none  
Tensile strength \_\_\_\_\_ Thickness of shell \_\_\_\_\_ Description of longitudinal joint { Plate Rivets  
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 \_\_\_\_\_ Diameter of rivet holes and pitch  
How connected to shell \_\_\_\_\_ Size of doubling plate under dome \_\_\_\_\_  
of rivets in outer row in dome connection to shell \_\_\_\_\_

Type of Superheater Smoke tube Manufacturers of { Tubes see New Certificate C.1683 ✓  
Material of tubes \_\_\_\_\_ Steel castings \_\_\_\_\_ Copy herewith.  
Number of elements \_\_\_\_\_ Internal diameter and thickness of tubes \_\_\_\_\_ Can the superheater be shut off and  
Material of headers \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_ Working pressure as per  
the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes  
Area of each safety valve 2.40" Are the safety valves fitted with easing gear yes Hydraulic test pressure  
Rules 220 lb Pressure to which the safety valves are adjusted 227 ✓ Are drain cocks or valves fitted  
tubes \_\_\_\_\_, castings \_\_\_\_\_ and after assembly in place 440 ✓  
to free the superheater from water where necessary yes  
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes  
The foregoing is a true and correct description,  
For David & Sons Ltd. [Signature] Manufactured by \_\_\_\_\_

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) \_\_\_\_\_  
Dates of Survey { During progress of work in shops - - -  
while building { During erection on board vessel - - -  
SEE ACCOMPANYING MACHINERY REPORT. Total No. of visits \_\_\_\_\_

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. \_\_\_\_\_

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. Satisfactory.  
Fitted in the vessel and their safety valves adjusted under steam.

21/9/34

Survey Fee ... £ See Machinery Rpt When applied for, 19  
Travelling Expenses (if any) £ \_\_\_\_\_ When received, 19

[Signature]  
Engineer Surveyor to Lloyd's Register of Ships

Committee's Minute GLASGOW 2 - OCT 1934

Assigned SEE ACCOMPANYING MACHINERY REPORT



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