

## REPORT ON BOILERS.

No. 50545

Received at London Office

10 SEP 1930  
11 JUN 1930

Date of writing Report

10

When handed in at Local Office

7. 6. 1930

Port of

Glasgow

No. in Survey held at  
Reg. Book.

Glasgow

Date, First Survey

17. 1. 30

Last Survey

21-5-

1930

on the

CITE DE LEVIS

(Number of Visits

16)

Gross 1259

Tons

Net 467

Master

Built at Old Kilpatrick

By whom built Napier &amp; Miller Ltd

Yard No. 274

When built 1930

Engines made at

Glasgow

By whom made

McKie &amp; Baxter Ltd

Engine No. 1259

When made 1930

Boilers made at

Glasgow

By whom made

D&amp;W Henderson &amp; Co Ltd

Boiler No. 165

When made 1930

Nominal Horse Power

277

Owners

Lewis Ferry Company

Port belonging to

Glasgow

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

Manufacturers of Steel

Darnley &amp; Sons Ltd

(Letter for Record (S))

Total Heating Surface of Boilers

4438 0'

Is forced draught fitted

yes

Coal or Oil fired

coal

No. and Description of Boilers

Two single ended

2SB

Working Pressure 185

Tested by hydraulic pressure to

328

Date of test

21-5-30

No. of Certificate

18737

Can each boiler be worked separately

Area of Firegrate in each Boiler

57.75 0'

No. and Description of safety valves to each boiler

Two direct spring

Area of each set of valves per boiler

6.9 0"

Rule 13.9 for each set

Pressure to which they are adjusted

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 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

14' 6"

Length

11' 0"

Shell plates: Material

Steel

Tensile strength

28-32 tons

Thickness

1 15/64"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

WR

long. seams

D&amp;S TR

Diameter of rivet holes in

circ. seams

1 1/4"

long. seams

Pitch of rivets

3.84"

Percentage of strength of circ. end seams

plate

64.6

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

86.2

Working pressure of shell by Rules

186 tons

Thickness of butt straps

outer

15/16"

inner

1 1/16"

No. and Description of Furnaces in each Boiler

Three Morrison

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

43.125"

Length of plain part

top

bottom

Thickness of plates

crown

9/16"

bottom

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

189

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 13/64"

Pitch of stays

18" x 18 1/8"

How are stays secured

DN

Working pressure by Rules

185

Tube plates: Material

front

steel

back

"

Tensile strength

26-30 tons

Thickness

63/64"

3/4"

Mean pitch of stay tubes in nests

10"

Pitch across wide water spaces

13 3/4"

Working pressure

front

191

back

200

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

Distance apart

2 @ 7 1/4" x 3/4"

Length as per Rule

29.595"

Distance apart

8 1/4"

No. and pitch of stays

Working pressure by Rules

185

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

4 1/64"

Back

2 1/32"

Top

4 1/64"

Bottom

13/16"

Pitch of stays to ditto: Sides

8 1/4" x 9 1/4"

Back

9" x 9"

Top

8 1/4" x 9 1/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

185

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

63/64"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

53/64"

Pitch of stays at wide water space

14 1/2" x 9"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

187

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay

3"

No. of threads per inch

6

Area supported by each stay

310

Working pressure by Rules

216

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part

1 5/8"

No. of threads per inch

9

Area supported by each stay

810"



Working pressure by Rules 188 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 2" Over threads }  
No. of threads per inch 9 Area supported by each stay 108.50" Working pressure by Rules 234  
Tubes: Material steel External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 9 L.S. 9. 3/8" 7/16" No. of threads per inch 9  
Pitch of tubes 4" x 4" Working pressure by Rules 215" Manhole compensation: Size of opening in  
shell plate 20 1/4" x 16 1/4" Section of compensating ring 9 3/4" x 1 15/64 No. of rivets and diameter of rivet holes 44 @ 1 1/4"  
Outer row rivet pitch at ends 9" Depth of flange if manhole flanged 3 7/8" 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 22 inclusive for boilers been complied with

For the foregoing is a correct description,  
J. J. Patie DIRECTOR Manufacturer.

Dates of Survey { During progress of work in shops - - 1930 Jan 17 24 29 Feb 15 19 Mar Are the approved plans of boiler and superheater forwarded herewith  
while building { During erection on board vessel - - 5. 12. 18 26 Apr 1 15 29 May Total No. of visits 16  
5. 8. 15 21

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 in accordance with the Rules.  
They will be fitted on board the vessel at Glasgow.

A.B.  
7/6/30.

Survey Fee ... £ 27 : 6 : When applied for, 10 JUN 1930  
Travelling Expenses (if any) £ : : When received, 4 July 1930

S. J. Davis.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 10 JUN 1930

Assigned TRANSMIT TO LONDON

See Glasgow Report No. 50653

FRI. 7 NOV 1930