

## REPORT ON BOILERS.

No. 49244A

Date of writing Report 16-6-29

When handed in at Local Office 17-6-29

Port of

Glasgow.

No. in Surveys held at Reg. Book.

Date, First Survey 18-1-29

Last Survey 17-6-29

1929

(Number of Visits 13)

Tons

Gross

Net

Master

Built at

By whom built

Yard No.

When built

Engines made at

By whom made

Engine No.

When made

Boilers made at

By whom made

Boiler No.

When made

Nominal Horse Power

Owners

Port belonging to

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

Manufacturers of Steel

D. Colville Sons

(Letter for Record

S

Total Heating Surface of Boilers

920 sq. ft. (2 BLRS)

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

2 LOCO-MARINE

Working Pressure

150 lbs

Tested by hydraulic pressure to

275 lbs

Date of test

17-5-29

No. of Certificate

18301

Can each boiler be worked separately

Area of Firegrate in each Boiler

18.3 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

Barrel 4'-5 3/16"

Length

11'-0"

Shell plates: Material

Steel

Tensile strength

28-32

Thickness

13/32"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

inter

long. seams

D.R.-D.B.S.

Diameter of rivet holes in

circ. seams

long. seams

13/16"

Pitch of rivets

2"

Percentage of strength of circ. end seams

plate

59.3%

rivets

53.3%

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

71%

rivets

142%

Working pressure of shell by Rules

Barrel 150 lbs

Thickness of butt straps

outer

3/8"

inner

1/2"

No. and Description of Furnaces in each Boiler

1 Rectangular

Material

Steel

Tensile strength

26-30

Smallest outside diameter

Length of plain part

top 4'-5 13/16"

bottom

Thickness of plates

crown

1/2"

bottom

Description of longitudinal joint

Dimensions of stiffening rings on furnace or on bottom

3" x 2 1/2"

Working pressure of furnace by Rules

171 lbs

End plates in steam space: Material

Steel

Tensile strength

26-30

Thickness

Smokebox tube plate 7/8"

Long

13"

How are stays secured

D.R. + Riveted doublers

Working pressure by Rules

172 lbs

Tube plates: Material

front

Steel

back

Tensile strength

26-30

Thickness

5/8"

Mean pitch of stay tubes in nests

9 1/32"

Pitch across wide water spaces

Working pressure

front

159 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

26-30

Depth and thickness of girder

at centre

9 thirds p/inch

Length as per Rule

Distance apart

6 1/2" x 7 1/2"

No. and pitch of stays

in each

Working pressure by Rules

171 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26-30

Thickness: Sides

1/2"

Back

1/2"

Top

1/2"

Bottom

Pitch of stays to ditto: Sides

7 1/2" x 6 1/2"

Back

7" x 7 1/2"

Top

7 1/2" x 6 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

171 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30

Thickness

17/32"

Lower back plate: Material

Steel

Tensile strength

26-30

Thickness

5/8"

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

Working Pressure

Main stays: Material

Steel

Tensile strength

28-32

Diameter

At body of stay, Long 1 7/8"

or Gross 2"

No. of threads per inch

6

Area supported by each stay

117 sq. in.

Working pressure by Rules

191-153 lbs

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part, 1 1/4"

or Over threads

No. of threads per inch

9

Area supported by each stay

48-75 sq. in.



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Working pressure by Rules **163 lb** Are the stays drilled at the outer ends **no** Margin stays: Diameter { At turned off part, **1 1/2"**  
No. of threads per inch **9** Area supported by each stay **71.25 sq** Working pressure by Rules **176 lb**  
Tubes: Material **Iron** External diameter { Plain **2 1/2"** Thickness { **10 u.f.** No. of threads per inch **9**  
Pitch of tubes **3 3/8" x 3 3/8"** Working pressure by Rules **175 lb** Manhole compensation: Size of opening in  
shell plate **15" x 11"** Section of compensating ring **5" x 5/8"** No. of rivets and diameter of rivet holes **40 - 13/16"**  
Outer row rivet pitch at ends **3 1/8"** 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  
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 22 inclusive for boilers been complied with

The foregoing is a correct description

**ALEX. HENDERSON & SONS, LTD.**  
Manufacturer.

Dates of Survey { During progress of work in shops - - **1929 Jan 18 Feb 20 Mar 25 Apr** Are the approved plans of boiler and superheater forwarded herewith **no - see**  
while building { During erection on board vessel - - **16 19 24 May 6 8 14 17 June 4 17** (If not state date of approval)  
Total No. of visits **maker 3044/5 26 RPL No 49073/4**

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

These boilers have been built under Special Survey, to approved plans, in accordance with the Society's Rules. Materials and workmanship are good. They are to the order of M<sup>rs</sup> Mc Kie Baxter of Glasgow, for their Engine No 1244.

Survey Fee ... £ **8 : 80**

Travelling Expenses (if any) £

When applied for, **18 JUN 1929**

When received, **18 JUN 1929**

**H. L. Lister**

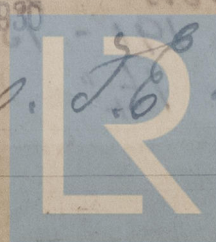
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 18 JUN 1929**

Assigned **TRANSMIT TO LONDON**

TUE. 18 MAR 1930

See Eng. L.R. 4654



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