

## REPORT ON BOILERS.

No. 95885

Received at London Office

4 SEP 1929

Writing Report

192

When handed in at Local Office

-2 SEP 1929

Port of

LIVERPOOL

Survey held at

Birkenhead

Date First Survey

Dec 28<sup>th</sup>/28

Last Survey

Aug 13/29

1929

on the

S. S. "Thomas Holt"

(Number of Visits)

Tons

Built at

Birkenhead

By whom built

Cammell Laird &amp; Co Ltd

Yard No.

956

When built

1929

es made at

Birkenhead

By whom made

Cammell Laird &amp; Co Ltd

Engine No.

956

When made

1929

s made at

Birkenhead

By whom made

Cammell Laird &amp; Co Ltd

Boiler No.

956

When made

1929

Horse Power

401

Owners

J. Holt &amp; Co (Ld) Ltd

Port belonging to

Liverpool

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

Manufacturers of Steel

David Colville &amp; Sons Ltd

Consett Iron Co

(Letter for Record)

S.

Heating Surface of Boilers

1490 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

Description of Boilers

One cylindrical multitubular

Working Pressure

180 lb sq in

Hydraulic test pressure by hydraulic pressure to

320 lb sq in

Date of test

26.4.29

No. of Certificate

2333

Can each boiler be worked separately

Yes

Firegrate in each Boiler

50 sq ft

No. and Description of safety valves to each boiler

Two spring loaded

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Yes

Distance between boilers or uptakes and bunkers or woodwork

2' 7"

Is oil fuel carried in the double bottom under boilers

No

Distance between shell of boiler and tank top plating

2' 3"

Is the bottom of the boiler insulated

Yes

Internal dia. of boilers

12' 6"

Length

10' 6"

Shell plates: Material

Steel

Tensile strength

28-32 tons sq in

Thickness

1 1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

DR lap

Rivets

Little R. D. Bullo

Diameter of rivet holes in

circ. seams

1 7/16"

long. seams

1 1/16"

Pitch of rivets

2.824"

Percentage of strength of circ. end seams

plate

62.3

rivets

50

Percentage of strength of circ. intermediate seam

plate

88.8

rivets

88.3

Percentage of strength of longitudinal joint

plate

88.8

rivets

88.3

combined

89.2

Working pressure of shell by Rules

180 lb sq in

Description of Furnaces in each Boiler

Three Corrugated

Tensile strength

26-30 tons sq in

Smallest outside diameter

3' 4"

Thickness of plates

crown

1/2"

bottom

Description of longitudinal joint

Weld

Working pressure of furnace by Rules

182 lb sq in

Material

Steel

Tensile strength

26-30 tons sq in

Thickness

1 7/16"

Pitch of stays

20 x 16"

Working pressure by Rules

184 lb sq in

Material

Steel

Tensile strength

26-30 tons sq in

Thickness

7/8"

Pitch across wide water spaces

14 1/4"

Working pressure

front

187 lb sq in

Pitch of stay tubes in nests

10 1/16"

Tensile strength

28-32 tons sq in

Depth and thickness of girder

Distance apart

8 1/2"

No. and pitch of stays

Steel

Working pressure by Rules

185 lb sq in

Material

Steel

Tensile strength

26-30 tons sq in

Thickness

Sides

9/8"

Back

9/32"

Top

9/8"

Bottom

7/8"

Are stays fitted with nuts or riveted over

hats

Material

Steel

Tensile strength

26-30 tons sq in

Thickness

13/16"

Working pressure by Rules

182 lb sq in

Material

Steel

Tensile strength

26-30 tons sq in

Thickness

13/16"

Working pressure by Rules

187 lb sq in

Material

Steel

Tensile strength

28-32 tons sq in

Thickness

13/16"

Working pressure by Rules

192 lb sq in

Material

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Tensile strength

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Material

Steel

Tensile strength

26-30 tons sq in

Thickness

13/16"

Working pressure by Rules

192 lb sq in

Material

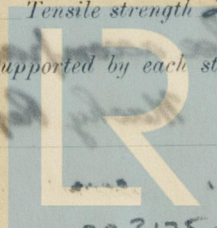
Steel

Tensile strength

26-30 tons sq in

Thickness

13/16"



Lloyd's Register Foundation

003175 003180 0136



Working pressure by Rules *1924* Are the stays drilled at the outer ends *no* Margin stays: Diameter *1 3/4"* At turned off part, *1 3/4"* Over threads *1864*

No. of threads per inch *9* Area supported by each stay *980* Working pressure by Rules *1864*

Tubes: Material *B. B. Iron* External diameter *3 1/4"* Thickness *9/16"* No. of threads per inch *9*

Pitch of tubes *4 3/8" x 4 3/8"* Working pressure by Rules *2154* Manhole compensation: Size of opening *1 1/2"*

shell plate *2 1/2" x 1 1/2"* Section of compensating ring *1 7/8" x 1 3/4"* No. of rivets and diameter of rivet holes *34 x 1 1/2"*

Outer row rivet pitch at ends *8 1/4"* Depth of flange if manhole flanged *3 1/4"* Steam Dome: Material *✓*

Tensile strength *50,000* Thickness of shell *1 1/2"* Description of longitudinal joint *✓*

Diameter of rivet holes *5/16"* Pitch of rivets *✓* Percentage of strength of joint *✓*

Internal diameter *✓* Working pressure by Rules *✓* Thickness of crown *✓* No. and dia Built at *BIRK*

Stays *✓* Inner radius of crown *✓* Working pressure by Rules *✓* Diameter of rivet holes *✓* Owners *MESSR*

How connected to shell *✓* Size of doubling plate under dome *✓* Electric Light

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 *✓* Can the superheater be shut off from the boiler *✓*

Material of headers *✓* Tensile strength *✓* Thickness *✓* Working pressure *✓*

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 *✓* Hydraulic test pressure *✓*

Rules *✓* Pressure to which the safety valves are adjusted *✓* Are drain cocks or valves *✓*

tubes *✓* and after assembly in place *✓*

to free the superheater from water where necessary *✓*

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes*

The foregoing is a correct description,  
JAMES L. LAIRD AND COMPANY LIMITED.  
J. S. Johnson

Dates of Survey *See weekly report* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval) *✓*

while building *✓* Total No. of visits *✓*

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

*This boiler has been constructed under special survey, and in with the approved plan. It has been satisfactorily fitted on board examined under steam.*

Survey Fee *£ 100* When applied for, *192*

Travelling Expenses (if any) *£ 100* When received, *192*

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

Committee's Minute *LIVERPOOL - 3 SEP. 1929*

Assigned *See accompanying Weekly Report.*