

## REPORT ON BOILERS.

No. 20464

Received at London Office 30 DEC 1929

Date of writing Report

192

When handed in at Local Office

18. 12.

1929

Port of

HULL.

No. in Survey held at  
Reg. Book.

Hull.

Date, First Survey

13. 9. 29.

Last Survey

23. 12.

1929

on the Steam Trawler "LADY ENID"

(Number of Visits)

15.

Gross

354. 26

Tons

Net

149. 29

Master

Built at

Bursley

By whom built

Cook, Wiltshire &amp; Lammell

Hull No. 534

When built 1929

Engines made at

Hull

By whom made

Charles D. Holmes &amp; Co. Ltd

Engine No. 1382

When made 1929

Boilers made at

Hull

By whom made

do

Boiler No. 1382

When made 1929

Nominal Horse Power

96

Owners

J. & A. Amalgamated  
Travellers Ltd

Port belonging to

Hull.

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

Manufacturers of Steel

Wicknights, Dargan, &amp; Linnhartman &amp; Co.

(Letter for Record)

(5)

Total Heating Surface of Boilers

1698 sq. ft.

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One, single ended return tube.

Working Pressure

200 lbs.

Tested by hydraulic pressure to

350 lbs.

Date of test

30. 11. 29

No. of Certificate

3449

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

49.2 sq. ft.

No. and Description of safety valves to each boiler

2 Spring loaded

Area of each set of valves per boiler

per Rule

9.8 sq. ft.

as fitted

9.8 sq. ft.

Pressure to which they are adjusted

200 lbs.

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

4"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

14'-0"

Length

10'-8"

Thickness

1 1/2"

Are the shell plates welded or flanged

No

long. seams

T.R. 58.8

Diameter of rivet holes in

circ. seams

1 1/2"

Percentage of strength of circ. end seams

plate

65.8

rivets

51.2

Percentage of strength of longitudinal joint

plate

85.0

rivets

70.8

Percentage of strength of combined

combined

88.8

Thickness of butt straps

outer

1 1/2"

inner

1 1/2"

Material

Steel

Length of plain part

top

76"

bottom

69"

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

No. and Description of Furnaces in each Boiler

Three plain.

Tensile strength

20/30 Tons

Smallest outside diameter

41"

Thickness of plates

crown

1 3/16"

bottom

1 1/16"

Description of longitudinal joint

butted

Working pressure of furnace by Rules

219 lbs.

End plates in steam space: Material

Steel

Tensile strength

20/30 Tons

Thickness

1 3/16"

Pitch of stays

18"

How are stays secured

Double nuts &amp; washers

Working pressure by Rules

220 lbs.

Tube plates: Material

Steel

Tensile strength

20/30 Tons

Thickness

1 5/16"

Pitch of stay tubes in nests

10.97"

Pitch across wide water spaces

13 3/4"

Working pressure

front

211 lbs.

Depth and thickness of girder

back

230

Girders to combustion chamber tops: Material

Steel

Tensile strength

20/32 Tons

Length as per Rule

36 3/16"

Distance apart

9"

No. and pitch of stays

Tensile strength

20/30 Tons

Thickness: Sides

3/4"

Back

2 3/32"

Top

3/4" &amp; 2 3/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

9" &amp; 8 3/4"

Back

9" &amp; 8 1/2"

Top

9" &amp; 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

230 lbs.

Front plate at bottom: Material

Steel

Tensile strength

20/30 Tons

Thickness

1 5/16"

Lower back plate: Material

Steel

Tensile strength

20/30 Tons

Thickness

2 3/32"

Pitch of stays at wide water space

14" &amp; 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

228 lbs.

Main stays: Material

Steel

Tensile strength

20/32 Tons

Diameter

At body of stay,

3 1/2"

Over threads

3 1/2"

No. of threads per inch

8

Area supported by each stay

324 sq. in.

Working pressure by Rules

245 lbs.

Screw stays: Material

Steel

Tensile strength

20/30 Tons

Diameter

At turned off part,

17/8" &amp; 1 3/4"

Over threads

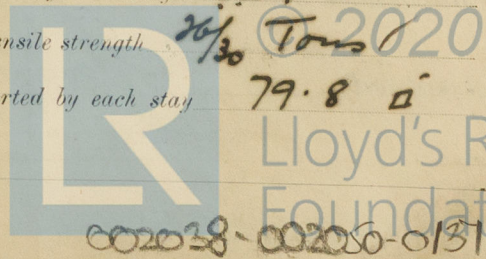
17/8" &amp; 1 3/4"

No. of threads per inch

10

Area supported by each stay

79.8 sq. in.



002028-002030-0131



Working pressure by Rules **230 lbs** Are the stays drilled at the outer ends **Yes** Margin stays: Diameter **1 7/8"**  
No. of threads per inch **10** Area supported by each stay **97.75 sq in** Working pressure by Rules **212 lbs**  
Tubes: Material **Iron** External diameter **3 1/2"** Thickness **1 1/16"** No. of threads per inch **9**  
Pitch of tubes **4 7/8"** Working pressure by Rules **215 lbs** Manhole compensation: Size of opening **32 @ 1 1/4"**  
shell plate **16 x 12** Section of compensating ring **34 x 27 x 1 3/4"** No. of rivets and diameter of rivet holes **32 @ 1 1/4"**  
Outer row rivet pitch at ends **8 3/4"** Depth of flange if manhole flanged  
Tensile strength **40,000** Thickness of shell **1 1/16"** Description of longitudinal joint  
Diameter of rivet holes **1 1/4"** Pitch of rivets **4"** Percentage of strength of joint **85%**  
Internal diameter **28"** Working pressure by Rules **215 lbs** Thickness of crown **1 1/16"** No. and diameter of rivets **32 @ 1 1/4"**  
stays **10** Inner radius of crown **14"** Working pressure by Rules **215 lbs**  
How connected to shell **By doubler plate** Size of doubler plate under dome **16 x 12** Diameter of rivet holes and pitch **1 1/4" @ 4"**  
of rivets in outer row in dome connection to shell

#### Type of Superheater

Number of elements **1** Material of tubes **Iron** Manufacturers of **W. & A. Mitchell**  
Material of headers **Iron** Tensile strength **40,000** Thickness **1 1/16"** Internal diameter and thickness of tubes **3 1/2" x 1 1/16"**  
the boiler be worked separately **Yes** 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 **10 sq in** Are the safety valves fitted with easing gear **Yes** Working pressure as per Rules **215 lbs**  
Rules **1** Pressure to which the safety valves are adjusted **215 lbs** Hydraulic test pressure **260 lbs**  
tubes **1** castings **0** and after assembly in place **215 lbs** Are drain cocks or valves fitted **Yes**  
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,  
For **CHARLES D. HOLMES & CO., LTD.** Manufacture

Dates of Survey **1929**  
while building **During progress of work in shops - - -** **Sep. 13, 23, 30, 10, 11, 19, 20, 24, 28**  
**During erection on board vessel - - -** **20, Dec. 2, 10, 13, 19, 23**  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) **Yes**  
Total No. of visits **18**

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) **This boiler has been built under special survey & in accordance with the approved plan & the materials & workmanship are found good. It has been satisfactorily fitted on board, tried under steam & its safety valves adjusted as above.**

**Charter engine report**

Survey Fee **£ 100** : : When applied for, **192**  
Travelling Expenses (if any) **£ 0** : : When received, **192**

Committee's Minute

Assigned

FRI, 3 JAN 1930

**See P. 6 of attached**

**John A. Mackenzie**  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation