

## REPORT ON BOILERS.

No. 112695

Received at London Office

10 APR 1945

Date of writing Report 20-3-1945 When handed in at Local Office

10 APR 1945

Port of

Spaulwich

No. in  
Reg. Book

Survey held at

Colchester &amp; Rowhedge

Date, First Survey

14 FEBRUARY 1944

Last Survey

4 APRIL 1945

26-3-1945

(Number of Visits

28

Gross 146.9

Net

on the

m.s. Coastal Light "VIC 76"

Built at

Rowhedge

By whom built

The Rowhedge Ironworks Co. Ltd.

Yard No. 655

When built 1945

Engines made at

Rowhedge

By whom made

The Rowhedge Ironworks Co. Ltd.

Engine No. 656

When made 1945

Boilers made at

Colchester

By whom made

Davy, Paxman &amp; Co. Ltd.

Boiler No. 20083

When made 1945

Owners

Ministry of War Transport

Port belonging to

London

## VERTICAL DONKEY BOILER.

Made at Colchester By whom made Davy, Paxman &amp; Co. Ltd. Boiler No. 20083 When made 1945 Where fixed Engine Room

Manufacturers of Steel Appleby - Frodingham Steel Co. Ltd.

Total Heating Surface of Boiler

504 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

Gen Paxmans Vertical

Working pressure

120 lb sq in

Tested by hydraulic pressure to

230 lb sq in

Date of test

4-1-45

No. of Certificate

1893

Area of Firegrate in each Boiler

23.75 sq ft

No. and Description of safety valves to each boiler Gen - double spring loaded

Area of each set of valves per boiler

per rule 6.0  
as fitted 6.28

Pressure to which they are adjusted

120 lb sq in

Are they fitted with easing gear

Yes

State whether steam from main boilers can enter the donkey boiler

Yes

Smallest distance between boiler or uptake and bunkers

or woodwork

12"

Is oil fuel carried in the double bottom under boiler

No

Smallest distance between base of boiler and tank top plating

Floor

Is the base of the boiler insulated

No

Largest internal dia. of boiler

6'-6"

Height

14'-3 3/8"

Shell plates: Material

Steel

Tensile strength

28/32 ton

Thickness

17/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end S.R. Lap.  
inter D.R. Lap.

long. seams D.R.D.B.S.

Dia. of rivet holes in

circ. seams 15/16"  
long. seams 15/16"

Pitch of rivets

2 1/4" x 3 1/4"  
3.32 x 3.32  
3.23, 4" x 3.264

Percentage of strength of circ. seams

plate 88 x 71  
rivets 47.5 x 65

of Longitudinal joint

plate 70.4  
rivets 65  
combined

Working pressure of shell by rules

as approved

Thickness of butt straps

outer 17/32"  
inner 13/16"

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

Yes

Material

Steel

Tensile strength

26/30 ton

Thickness

3/4"

Radius

6'-0"

Working pressure by rules

Description of Furnace: Plain, spherical, or dished crown

Yes

Material

Steel

Tensile strength

26/30 ton

Thickness

5/8"

External diameter

top  
bottom

Length as per rule

Working pressure by rules

Pitch of support stays circumferentially

Yes

and vertically

Yes

Are stays fitted with nuts or riveted over

Yes

Diameter of stays over thread

Yes

Radius of spherical or dished furnace crown

39"

Working pressure by rule

Yes

Thickness of Ogee Ring

7/8"

Diameter as per rule

D 6'-6"  
a 5'-7"

Working pressure by rule

Combustion Chamber: Material

Steel

Tensile strength

26/30 ton

Thickness of top plate

Yes

Radius if dished

Yes

Working pressure by rule

Yes

Thickness of back plate

Yes

Diameter if circular

5'-4"

Length as per rule

Yes

Pitch of stays

Yes

Are stays fitted with nuts or riveted over

Yes

Diameter of stays over thread

Yes

Working pressure of back plate by rules

Yes

Tube Plates: Material

front Steel  
back

Tensile strength

26/30 ton

Thickness

13/16"

Mean pitch of stay tubes in nests

10 5/8"

If comprising shell, Dia. as per rule

front  
back

Pitch in outer vertical rows

8 1/4"

Dia. of tube holes FRONT

stay 2 1/2"  
plain 2 3/8"

BACK

stay 2 1/2"  
plain 2 1/4"

Is each alternate tube in outer vertical rows a stay tube

Yes

Working pressure by rules

front  
back

Yes

Girders to combustion chamber tops: Material

Yes

Tensile strength

Yes

Length as per rule

Yes

Distance apart

No. and pitch of stays in each

Yes

Working pressure by rule

Yes

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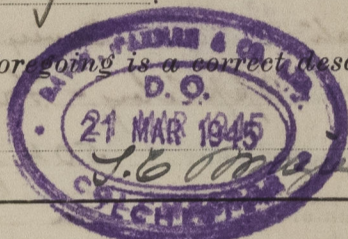
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**Crown stays:** Material ☒ Tensile strength ☒ Diameter ☒ at body of stay, or over threads ☒  
 No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by rules ☒  
**Screw stays:** Material ☒ Tensile strength ☒ Diameter ☒ at turned off part, or over threads ☒ No. of threads per inch ☒  
 Area supported by each stay ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒  
**Tubes:** Material Steel External diameter ☒ plain 2 1/4" stay ☒ Thickness ☒ 10 S.W.G. 1/4"  
 No. of threads per inch 9 Pitch of tubes 3 1/4" x 4 1/8" Working pressure by rules ☒  
**Manhole Compensation:** Size of opening in shell plate 16 1/4" x 19 1/4" Section of compensating ring 5" x 1" No. of rivets and diameter  
 of rivet holes 36 - 15/16" Outer row rivet pitch at ends 4 1/2" Depth of flange if manhole flanged 3"  
**Uptake:** External diameter ☒ Thickness of uptake plate ☒  
**Cross Tubes:** No. ☒ External diameters ☒ Thickness of plates ☒

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

The foregoing is a correct description,



Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1944: Feb 14, 24 Mar 16 May 22, 30 June 17, 22, July 12, 31  
 AUG 24 SEP 12, 18, 26 Oct 7, 17, 26, 30 Nov 17 Dec 1, 5, 12  
 1945: Jan 2, 4. Is the approved plan of boiler forwarded herewith (If not state date of approval.)  
 { During erection on board vessel - - 1945: Feb 8, 14, 28 Mar 20 Apr 4. Total No. of visits 28

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

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

The Boiler has been Constructed under Special Survey  
 in accordance with the approved plan & Rule  
 Requirements & Secretary's letter.  
 The materials & workmanship are sound & of good  
 description.  
 The Boiler has been fitted in an efficient manner  
 in the Rowhelf Ironworks Co. Ltd. Lancs No 655.

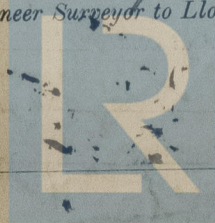
Survey Fee ... £ 4 4 0 } When applied for, 10 APR 1945  
 Travelling Expenses (if any) £ 3 1 4 } When received, 19

Committee's Minute FRI. 27 APR 1945

Assigned

Su F.E. Mackay, rph.

Engineer Surveyor to Lloyd's Register of Shipping.



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