

# 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 Ipswich

No. in Reg. Book Survey held at Colchester & Rowhedge. Date, First Survey 14 FEBRUARY 1944 Last Survey 26 3 1945. (Number of Visits 28) Gross 146.9 Tons 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 Davey, Paxman & 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 Davey, Paxman & 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 ho Coal or Oil fired Coal Working pressure 120 lb sq in

No. and Description of Boilers Gen Paxmans Vertical 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 6.60 as fitted 6.28 Pressure to which they are adjusted 120 lb sq in Are they fitted with easing gear Yn

State whether steam from main boilers can enter the donkey boiler Is oil fuel carried in the double bottom under boiler ho Smallest distance between boiler or uptake and bunkers or woodwork 12" Smallest distance between base of boiler and tank top plating floor

Is the base of the boiler insulated ho 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 ho 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" Pitch of rivets 2 1/4 x 3 1/4 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 Yn 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 Yn 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 and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown 39" Working pressure by rule

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

Radius if dished Working pressure by rule Thickness of back plate Diameter if circular 5'-4"

Length as per rule Pitch of stays Are stays fitted with nuts or riveted over

Diameter of stays over thread Working pressure of back plate by rules

Tube Plates: Material front back Steel Tensile strength 26/30 ton Thickness 13/16" Mean pitch of stay tubes in nests 10 5/8"

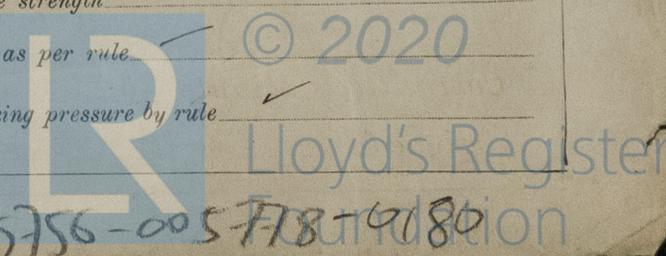
If comprising shell, Dia. as per rule front back Pitch in outer vertical rows 8 1/4" Dia. of tube holes FRONT stay 2 1/4" plain 2 3/8" BACK stay 2 1/4" plain 2 1/4"

Is each alternate tube in outer vertical rows a stay tube Yn Working pressure by rules front back

Girders to combustion chamber tops: Material Tensile strength

Depth and thickness of girder at centre Length as per rule Working pressure by rule

Distance apart No. and pitch of stays in each



**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 2 1/4" } 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  *Yes*

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 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 no 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 & Rules 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

*Joyntell*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 27 APR 1945

Assigned Su F.E. machy, rph.



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