

REPORT ON BOILERS.

No. 17658.

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Rpt. 5b.

2 JUN 1944

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D.O.

Received at London Office

Date of writing Report 14-6-1944 When handed in at Local Office 19-6-1944

Port of Widdow'sNo. in Survey held at
Reg. BookSlipken - n. Jers.

Date, First Survey

22nd March

Last Survey

6th June 1944(Number of Visits 12)Tons Gross 132 39/100
Net 50 14/100

On the

"Vic 79"

Built at Leweston By whom built Richards Ironworks Ltd Yard No. 342 When built 1945
 Engines made at Great Farnworth By whom made James Crabtree (1931) Ltd Engine No. 573 When made 1945
 Boilers made at Slipken - n. Jers. By whom made Kirklin C.E. & Riley Bolton Ltd Boiler No. 6851 When made 1944
 Owners Ministry of War Transport Port belonging to Leweston

VERTICAL DONKEY BOILER.

Made at Slipken By whom made Slipken C.E. & Riley Bolton Ltd Boiler No. 6851 When made 1944 Where fixed Leweston

Manufacturers of Steel Appledby & Redingham Steel Co. Ltd

Total Heating Surface of Boiler 525 sq ft Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers 1. Vertical multi-tubular Working pressure 120 lb.

Tested by hydraulic pressure to 230 lb. Date of test 6/6/44 No. of Certificate 7114

Area of Firegrate in each Boiler 25 sq ft No. and Description of safety valves to each boiler 1-2" C.I. Gable Safety Valve

Area of each set of valves per boiler per rule 4.86 Pressure to which they are adjusted 120 lb./sq in Are they fitted with easing gear yes
as fitted 6.28

State whether steam from main boilers can enter the donkey boiler yes Smallest distance between boiler or uptake and bunkers

or woodwork 1'-3" Is oil fuel carried in the double bottom under boiler yes Smallest distance between base of boiler and tank top plating

yes Is the base of the boiler insulated no Largest internal dia. of boiler 6'-6 15/16" Height 14'-6"

Shell plates: Material Steel Tensile strength 28-32 Thickness upper 2 1/16" lower 1 5/32"

Are the shell plates welded or flanged no Description of riveting: circ. seams SR. Lap. long. seams DR. DBS.

Dia. of rivet holes in circ. seams 1 5/16" Pitch of rivets upper 2.136" lower 2.816" Percentage of strength of circ. seams plate 56.1% of Longitudinal joint plate (LOWER) 74%
long. seams 1 3/16" upper 2.136" lower 2.816" rivets 47.2% rivets 109%
combined 102.8%

Working pressure of shell by rules 125 lb. Thickness of butt straps outer 3/8" inner 7/16"

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

Tensile strength 26-30 Thickness 2 7/32" Radius 6'-0" Working pressure by rules 121 lb.

Description of Furnace: Plain, spherical, or dished crown yes Material Steel Tensile strength 26-30

Thickness 2 5/32" External diameter top 5'-10" Length as per rule 2'-7" Working pressure by rules 149 lb.

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 4'-0 25/32" Working pressure by rule 135 lb.

Thickness of Ogee Ring 2 5/32" Diameter as per rule D 6'-6" Working pressure by rule 129 lb.
d 5'-10"

Combustion Chamber: Material Steel Tensile strength 26-30 Thickness of top plate 2 1/32"

Radius if dished yes Working pressure by rule 127 lb. Thickness of back plate 2 1/32" Diameter if circular yes

Length as per rule yes Pitch of stays 9'2" x 8'2" Are stays fitted with nuts or riveted over Riveted on

Diameter of stays over thread 1 3/8" Working pressure of back plate by rules 123 lb.

Tube Plates: Material Steel Tensile strength 26-30 Thickness 2 1/32" Mean pitch of stay tubes in nests 10'8"

If comprising shell, Dia. as per rule front 6'-4" Pitch in outer vertical rows 7" Dia. of tube holes FRONT stay 2 1/2" BACK stay 2 1/4"
back 6'-4" 7" plain 2 5/16" plain 2 1/4"

Is each alternate tube in outer vertical rows a stay tube yes Working pressure by rules front 132 lb. back 148 lb.

Girders to combustion chamber tops: Material Steel Tensile strength 28-32

Depth and thickness of girder at centre 16" - 2 x 5/8" Length as per rule 1'-10 3/16"

Distance apart 12" No. and pitch of stays in each 1 Working pressure by rule 125

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Crown stays: Material Steel 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 Steel Tensile strength 26.30 Diameter ✓ { at turned off part, or over threads 1 3/8" No. of threads per inch 9

Area supported by each stay 80.75 Working pressure by rules 125.6 Are the stays drilled at the outer ends ✓

Tubes: Material Hot rolled Weldless Steel External diameter ✓ { plain 2 1/4" stay 2 1/4" Thickness ✓ { 10 W.G. 5/16"

No. of threads per inch 9 Pitch of tubes 3 1/2" x 3 1/4" Working pressure by rules 190 lb.

Manhole Compensation: Size of opening in shell 16" x 12" Section of compensating ring None No. of rivets and diameter of rivet holes ✓ Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 3 1/2"

Uptake: External diameter ✓ Thickness of uptake plate ✓

Cross Tubes: No. ✓ External diameters ✓ Thickness of plates ✓

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description,
L. W. Riley Manufacturer.

1944 March 22, 28, April 6, 12, 19, 26, May 4, 10

Dates of Survey while building { During progress of work in shops - 17, 22, June 2, 6

{ During erection on board vessel - -

Is the approved plan of boiler forwarded herewith 30/1/43
 (If not state date of approval.)

Total No. of visits 12

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

This boiler has been constructed under Special Survey & in accordance with the approved plan & Rule Requirements.

The materials & workmanship are good, & on completion the boiler was hydraulically tested to 130 lb. per sq. in. & found satisfactory.

This boiler has been installed on the vessel under Special Survey and in accordance with the approved plan & Rule Requirements.

The materials and workmanship are good & on completion the safety valves were adjusted under steam to 120 lbs. per sq. in. An accumulation test, for a duration of 15 minutes, was carried out with the stop valves closed & under full firing conditions and the accumulation of pressure did not exceed 10 per cent. of the loaded pressure.

J. J. Turpie

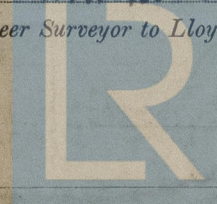
Survey Fee ... £ 4 : 4 : } When applied for, 19- 6- 19 44

Travelling Expenses (if any) £ : : } When received, 19

Committee's Minute FRI. 16 MAR 1945

Assigned Su F.E. Macky. rph.

L. W. Riley
 Engineer Surveyor to Lloyd's Register of Shipping.



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