

# REPORT ON BOILERS.

NEWCASTLE-ON-TYNE, No.

102336

No. ~~10099~~

170062

Received at London Office 6th Oct. 1943.

Date of writing Report 13.9.43 When handed in at Local Office 30th Sept. 43 Port of ~~XXXXXXXXXXXXXXXXXXXX~~ LIVERPOOL

No. in Survey held at Birkenhead Date, First Survey 26/3/42 Last Survey 10/9/1943  
Reg. Book. hewcastle " " 30/8/44.  
(Number of Visits 30) Tons { Gross 7046  
Net 4747

on the **SS EMPIRE LADY.**

Master Built at Newcastle By whom built Shipby Corp (Dyne Brand) Yard No. 8 When built 1944-8

Engines made at Newcastle By whom made N.E. MAR. E. Co (1938) Ltd Engine No. 3057 When made 1944.

Boilers made at Birkenhead By whom made Cammell Laird & Co. Ltd. Boiler No. 2239 When made 1943

and nominal Horse Power 483 Owners Mm. of War Transport Port belonging to Newcastle.

**ONE AUXY. BLR.** **LLOYD'S TEST NO 2609** **13-8-43. R.O.B** fitted on SS EMPIRE LADY.

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

Manufacturers of Steel Colvilles Ltd. (Letter for Record (S) )

Total Heating Surface of Boilers 7848 <sup>SQUARE FEET. 2416. for One BLR.</sup> Is forced draught fitted Yes. Coal or Oil fired Coal fired

No. and Description of Boilers Three single-ended - one now utilised for Empire Lady Working Pressure 220 lbs.

Tested by hydraulic pressure to 380 lbs Date of test 13.8.43 No. of Certificate 2609 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 54.84 No. and Description of safety valves to each boiler Two of 2 1/2" Cockburn's Imp H.L.

Area of each set of valves per boiler { per Rule 6.68 sqm as fitted 7.94" Pressure to which they are adjusted 220 lb 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 1'6" Is oil fuel carried in the double bottom under boilers No.

Smallest distance between shell of boiler and tank top plating 2'0 1/4" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 15'-0.1/16" Length 10'-1.1/32" Shell plates: Material Steel Tensile strength 29-33 tons

Thickness 1.15/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R. inter. -

g. seams T.R. - D.B.S. Diameter of rivet holes in { circ. seams 1 1/2" long. seams 1 1/2" Pitch of rivets { 4.07" plate - rivets 10.375"

Percentage of strength of circ. end seams { plate 63.1 rivets 46.7 Percentage of strength of circ. intermediate seam { plate - rivets -

Percentage of strength of longitudinal joint { plate 85.5 rivets 86 Working pressure of shell by Rules 225 lbs. combined 87

Thickness of butt straps { outer 1 1/8" inner 1 1/4" No. and Description of Furnaces in each Boiler Three - Deighton Section

Material Steel Tensile strength 26-30 tons Smallest outside diameter 45 1/4"

Length of plain part { top - bottom - Thickness of plates { crown 11/16" bottom 11/16" Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules

Stays in steam space: Material Steel Tensile strength 26 - 30 tons Thickness 1.13/32" Pitch of stays 20" x 21"

How are stays secured D.N. Working pressure by Rules

Stays: Material { front Steel back Steel Tensile strength { 26 - 30 tons Thickness { 15/16" 25/32"

Pitch of stay tubes in nests Pitch across wide water spaces 14" Working pressure { front back

Stays to combustion chamber tops: Material Steel Tensile strength 28 - 32 tons Depth and thickness of girder

Centre 10 1/2" x 11/16" double Length as per Rule 2'-9.17/32" Distance apart 9 1/4" No. and pitch of stays

Each 3 @ 8" Working pressure by Rules Combustion chamber plates: Material Steel

Tensile strength 26 - 30 tons Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 13/16"

Pitch of stays to ditto: Sides 8" x 9 1/4" Back 8" x 9 1/4" Top 8" x 9 1/4" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules Front plate at bottom: Material Steel Tensile strength 26 - 30 tons

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26 - 30 tons Thickness 27/32"

Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over Nuts

Working Pressure Main stays: Material Steel Tensile strength 28 - 32 tons

At body of stay, meter { or Over threads 3 1/2" No. of threads per inch 6 Area supported by each stay 21" x 20"

Working pressure by Rules Screw stays: Material Steel Tensile strength 26 - 30 tons

At turned off part, meter { or Over threads 1 5/8" - 1.7/8" No. of threads per inch 9 Area supported by each stay 7 1/4" x 7 1/4"



