

# REPORT ON BOILERS.

No. 68583

**RETAIN**

Received at London Office 13 JUL 1944

Date of writing Report 10 When handed in at Local Office 11. 7. 1944 Port of Glasgow

No. in Survey held at Reg. Book. Glasgow Date, First Survey 18. 8. 44 Last Survey 5. 7. 1944

on the S.S. "EMPIRE ROSEBERY" (Number of Visits 39) Tons { Gross 2370 Net 281

Master ✓ Built at Glasgow By whom built Blythwood S/B Co. Ltd Yard No. 77 When built 1944

Engines made at Glasgow By whom made David Rowan & Co. Ltd Engine No. 1140 When made 1944

Boilers made at - do - By whom made - do - Boiler No. 1126 When made 1944

Nominal Horse Power 242 Owners Ministry of War Transport. Port belonging to Glasgow.

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

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

Total Heating Surface of Boilers 3360 sq ft Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers One single ended boiler Working Pressure 220 lb/sq in

Tested by hydraulic pressure to 380 lb/sq in Date of test 24-3-44 No. of Certificate 21689 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 1/2 Improved high lift double.

Area of each set of valves per boiler { per Rule 8.950" as fitted 9.80" Pressure to which they are adjusted 220 lb/sq in 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 2'-5" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating Open floors Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 16'-0" Length 12'-0" Shell plates: Material S. Tensile strength 29/33 Tons

Thickness 1 1/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams { end DR. inter. ✓

long. seams T.R.D.B.S. Diameter of rivet holes in { circ. seams BACK 1 1/16" FRONT 1 7/16" Pitch of rivets { BACK 4-16" FRONT 3-64" long. seams 1 9/16" 10 13/16"

Percentage of strength of circ. end seams { plate BACK 62.4 FRONT 60.5 rivets " 47.8 " 46.3 Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓

Percentage of strength of longitudinal joint { plate 85.5 rivets 85.8 combined 88.2 Working pressure of shell by Rules ✓

Thickness of butt straps { outer 1 5/32" inner 1 3/32" No. and Description of Furnaces in each Boiler 3 Dighton Furnaces

Material S. Tensile strength 26/30 Tons Smallest outside diameter 3'-10 13/32"

Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 45" bottom 64" Description of longitudinal joint Welded.

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

End plates in steam space: Material S. Tensile strength 26/30 Tons Thickness 1 7/16" Pitch of stays 20" x 2'-0 1/2"

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

Tube plates: Material { front S. back S. Tensile strength { 26/30 Tons Thickness { 7/8" 35/32"

Mean pitch of stay tubes in nests 9 1/4" Pitch across wide water spaces 13 1/2" Working pressure { front ✓ back ✓

Girders to combustion chamber tops: Material S. Tensile strength 28/32 Tons Depth and thickness of girder at centre 2 @ 9 3/4" x 7/8" Length as per Rule 2'-10 9/16" Distance apart 9 3/4" No. and pitch of stays in each 3 @ 8 1/4" Working pressure by Rules ✓ Combustion chamber plates: Material S.

Tensile strength 26/30 Tons Thickness: Sides 23/32" Back 21/32" Top 23/32" Bottom 27/32"

Pitch of stays to ditto: Sides 9 3/4" x 8 1/4" Back 8 1/2" x 8" Top 8 1/2" x 9 3/4" Are stays fitted with nuts or riveted over Nuts.

Working pressure by Rules ✓ Front plate at bottom: Material S. Tensile strength 26/30 Tons

Thickness 5/8" Lower back plate: Material S. Tensile strength 26/30 Tons Thickness 13/16"

Pitch of stays at wide water space 13 7/16" Are stays fitted with nuts or riveted over Nuts.

Working Pressure ✓ Main stays: Material S. Tensile strength 28/32 Tons

Diameter { At body of stay, 3 1/2" & 3 1/4" No. of threads per inch 6 Area supported by each stay ✓ Over threads ✓

Working pressure by Rules ✓ Screw stays: Material S. Tensile strength 26/30 Tons

Diameter { At turned off part, 1 5/8" & 1 3/4" No. of threads per inch 9 Area supported by each stay ✓ Over threads ✓

