

REPORT ON BOILERS.

3 NOV 1943

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Received at London Office 15 NOV 1943

Date of writing Report

19

When handed in at Local Office

19

Port of

NEWCASTLE-ON-TYNE

No. in Reg. Book

Survey held at

Wallsend

Date, First Survey

15th June 1942

Last Survey

5th October 1943

1943

(Number of Visits 61)

Gross 7024

Tons

Net 4734

37252 on the

SS "EMPIRE FLAG"

Built at Walker By whom built Armstrong Whitworth & Co Ltd Yard No. 4 When built 1943

Engines made at Wallsend By whom made N.E. Marine Eng Co (1938) Ltd Engine No. 3032 When made 1943

Boilers made at " By whom made " Boiler No. 3032 When made 1943

Nominal Horse Power 542 Owners Ministry of War Transport Port belonging to Newcastle

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Co of Scotland Ltd & Colvill's Ltd (Letter for Record S)

Total Heating Surface of Boilers 5558 Is forced draught fitted Yes Coal or Oil fired Coal

No. and Description of Boilers 2 No Working Pressure 220

Tested by hydraulic pressure to 380 Date of test 31.12.42 No. of Certificate 1027 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 67.5 No. and Description of safety valves to each boiler 1 Double

Area of each set of valves per boiler per Rule 14.9 as fitted 16.58 Pressure to which they are adjusted 225 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 Is oil fuel carried in the double bottom under boilers No

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

Largest internal dia. of boilers 15'-11 17/16" Length 12'-4 1/2" Shell plates: Material S Tensile strength 29-33

Thickness 1 7/32 Are the shell plates welded or flanged No Description of riveting: circ. seams end DR. inter. Yes

long. seams T.R. D.B.S. Diameter of rivet holes in circ. seams 1 9/16 Pitch of rivets 4-1 10 13/16

Percentage of strength of circ. end seams plate 62 rivets 48.6 Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 85.5 rivets 86 combined 88.2

Thickness of butt straps outer 1 3/16 inner 1 5/16 No. and Description of Furnaces in each Boiler 3 cf.

Material S Tensile strength 26-30 Smallest outside diameter 3'-11 1/4"

Length of plain part top bottom Thickness of plates crown 4 7/16 bottom 1 6/16 Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom

End plates in steam space: Material S Tensile strength 26-30 Thickness 1 1/2" Pitch of stays 23'-20 13/16"

How are stays secured Double nuts

Tube plates: Material front back S Tensile strength 26-30 Thickness 1 5/16 7/8

Mean pitch of stay tubes in nests 8.87 Pitch across wide water spaces 14 1/4 x 4 1/8"

Girders to combustion chamber tops: Material S Tensile strength 29-35 Depth and thickness of girder

at centre 11 1/2 x 1" dble. Length as per Rule 46 1/2 Distance apart 8 1/2 No. and pitch of stays

in each 3 @ 11 1/8" Combustion chamber plates: Material S

Tensile strength 26-30 Thickness: Sides 2 5/32 5 1/4 Back 2 5/32 Top 2 5/32 5 1/4 Bottom 2 5/32

Pitch of stays to ditto: Sides 11 1/8 x 8 7/8 Back 10 1/2 x 7 3/4 Top 11 1/8 x 8 1/2 Are stays fitted with nuts or riveted over nuts

Front plate at bottom: Material S Tensile strength 26-30

Thickness 1 5/16 Lower back plate: Material S Tensile strength 26-30 Thickness 3/32

Pitch of stays at wide water space 15 8/8 x 14 1/2 Are stays fitted with nuts or riveted over nuts

Main stays: Material S Tensile strength 28-32

Diameter At body of stay or Over threads 3 1/2 No. of threads per inch 6

Screw stays: Material S Tensile strength 26-30

Diameter At turned off part or Over threads 1 3/4 1 7/8 + 2 No. of threads per inch 9



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