

REPORT ON BOILERS.

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Date of writing Report 19 When handed in at Local Office 12. 6. 1937 Port of Glasgow

No. in Reg. Book. Survey held at Glasgow Date, First Survey 7. 4. 37 Last Survey 11-6-1937

on the S/S "OPEPE". (Number of Visits 11) Gross Tons 362 Net Tons 131

Master Built at Bowling By whom built Scott & Son Yard No. 342 When built 1937

Engines made at Polydebank By whom made Aitchison Blair Ltd Engine No. 209 When made 1937

Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 430 When made 1937

Nominal Horse Power Owners Frontier Towing Steamship Co Ltd Port belonging to Newry

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland Ltd (Letter for Record (S))

Total Heating Surface of Boilers 1489 Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers one single ended Working Pressure 205

Tested by hydraulic pressure to 358 Date of test 2-6-37 No. of Certificate 19966 Can each boiler be worked separately

Area of Firegrate in each Boiler 50.8 sq ft No. and Description of safety valves to each boiler

Area of each set of valves per boiler {per Rule as fitted} Pressure to which they are adjusted Are they fitted with easing gear

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

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

Largest internal dia. of boilers 13'-0" Length 10'-0" Shell plates: Material steel Tensile strength 29-33 tons

Thickness 1 3/16" Are the shell plates welded or flanged no Description of riveting: circ. seams {end inter.} DR

long. seams 19 BS. TR Diameter of rivet holes in {circ. seams F 1 3/16" B 1 1/4" long. seams 1/4" Pitch of rivets {F 3.207" B 3.5" 8 1/4"}

Percentage of strength of circ. end seams {plate rivets F 62.9 B 64.2 F 46.2 B 46.8} Percentage of strength of circ. intermediate seam {plate rivets 84.8 92.8}

Percentage of strength of longitudinal joint {plate rivets combined 84.8 92.8 88.5} Working pressure of shell by Rules 206

Thickness of butt straps {outer 29" inner 32" 1 1/32"} No. and Description of Furnaces in each Boiler Three Heights

Material steel Tensile strength 26-30 tons Smallest outside diameter 3'-2 3/32"

Length of plain part {top bottom} Thickness of plates {crown bottom} 35" 64" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 208

End plates in steam space: Material steel Tensile strength 26-30 tons Thickness 1 3/32" Pitch of stays 15 1/2" x 17 1/4"

How are stays secured. WN Working pressure by Rules 206

Tube plates: Material {front back} steel Tensile strength {26-30 tons " " Thickness {29" 32" 25 3/32"}

Mean pitch of stay tubes in nests 10.18 Pitch across wide water spaces 14" Working pressure {front back} 207 211

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

at centre 2 @ 6 3/4" x 7/8" Length as per Rule 28 3/16" Distance apart 8" No. and pitch of stays

in each 2 @ 9 1/4" Working pressure by Rules 210 Combustion chamber plates: Material steel

Tensile strength 26-30 tons Thickness: Sides 43/64" Back 21/32" Top 43/64" Bottom 1"

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

Working pressure by Rules 208 Front plate at bottom: Material steel Tensile strength 26-30 tons

Thickness 29/32" Lower back plate: Material steel Tensile strength 26-30 tons Thickness 13/16"

Pitch of stays at wide water space 13 1/4" Are stays fitted with nuts or riveted over nuts

Working Pressure 217 Main stays: Material steel Tensile strength 28-32 tons

Diameter {At body of stay, or Over threads} 2 3/4" & 2 1/2" No. of threads per inch 6 Area supported by each stay 278 & 253

Working pressure by Rules 235 & 211 Screw stays: Material steel Tensile strength 26-30 tons

Diameter {At turned off part, or Over threads} 1 5/8" No. of threads per inch 9 Area supported by each stay 760

