

Rpt. 5a.

## REPORT ON BOILERS.

No. 58508

Received at London Office

JUN 16 1937  
AUG 25 1937

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

362

Tons

Net

131

Master \_\_\_\_\_ Built at Bowling By whom built Scott & Son Yard No. 342 When built 1937  
 Engines made at Polysabank 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 Town 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 DR inter. \_\_\_\_\_

long. seams DRS, TR Diameter of rivet holes in { circ. seams F 1 3/16" B 1 1/4" Pitch of rivets { F 3.207" B 3.5"

Percentage of strength of circ. end seams { plate F 62.9 B 64.2 rivets F 46.2 B 46.2 Percentage of strength of circ. intermediate seam { plate \_\_\_\_\_ rivets \_\_\_\_\_

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

Thickness of butt straps { outer 29" inner 32" 1 1/2" No. and Description of Furnaces in each Boiler Three Horizontal

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

Length of plain part { top \_\_\_\_\_ bottom \_\_\_\_\_ Thickness of plates { crown 35" bottom 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 DN Working pressure by Rules 206

Tube plates: Material { front Steel back \_\_\_\_\_ 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 207 back 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" Back 21" Top 43" 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" Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 13"

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, 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, 1 5/8" No. of threads per inch 9 Area supported by each stay 760"

Foundation



Working pressure by Rules 206 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 3/4" or Over threads. 1 3/4"  
No. of threads per inch 9 Area supported by each stay 87.70" Working pressure by Rules 205  
Tubes: Material steel External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 8 w.c. No. of threads per inch 9  
Pitch of tubes 4 3/8" x 4 7/16" Working pressure by Rules 230 Manhole compensation: Size of opening in  
shell plate 19 1/2" x 15 1/2" Section of compensating ring 9 1/2" x 1 3/16" No. of rivets and diameter of rivet holes 34 @ 1 3/16" 1 1/4"  
Outer row rivet pitch at ends 8 3/4" Depth of flange if manhole flanged 3 Steam Dome: Material none  
Tensile strength \_\_\_\_\_ Thickness of shell \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_  
Diameter of rivet holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Percentage of strength of joint { Plate \_\_\_\_\_ Rivets \_\_\_\_\_  
Internal diameter \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Thickness of crown \_\_\_\_\_ No. and diameter of  
stays \_\_\_\_\_ Inner radius of crown \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_  
How connected to shell \_\_\_\_\_ Size of doubling plate under dome \_\_\_\_\_ Diameter of rivet holes and pitch  
of rivets in outer row in dome connection to shell \_\_\_\_\_

Type of Superheater none Manufacturers of { Tubes \_\_\_\_\_ Steel castings \_\_\_\_\_  
Number of elements \_\_\_\_\_ Material of tubes \_\_\_\_\_ Internal diameter and thickness of tubes \_\_\_\_\_  
Material of headers \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_ Can the superheater be shut off and  
the boiler be worked separately \_\_\_\_\_ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler  
Area of each safety valve \_\_\_\_\_ Are the safety valves fitted with easing gear \_\_\_\_\_ Working pressure as per  
Rules 205 Pressure to which the safety valves are adjusted \_\_\_\_\_ Hydraulic test pressure:  
tubes \_\_\_\_\_, castings \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Are drain cocks or valves fitted  
to free the superheater from water where necessary \_\_\_\_\_

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with \_\_\_\_\_

The foregoing is a correct description,  
For David Rowan & Co. Ltd. Manufacturer:  
Arch. H. Grierson

Dates of Survey { During progress of work in shops - - 1937 Apr. 7. 14. 15. 19. 20 Are the approved plans of boiler and superheater forwarded herewith copy  
while building { During erection on board vessel - - May 14. 27. 31 June 2. 9. 11 (If not state date of approval.)  
Total No. of visits 10

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. "Privel" Gb Rpt No 56984

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

The materials and workmanship are good.  
The boiler has been constructed under special survey.  
It will be fitted on board the vessel at Glasgow.

Survey Fee ... £ 9 : 18 : When applied for, 14 JUN 1937  
Travelling Expenses (if any) £ : : When received, 6. 8. 1937  
(per hour)

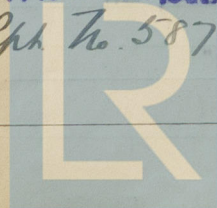
S. Davis.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 JUN 1937

Assigned TRANSMIT TO LONDON

GLASGOW 24 AUG 1937

See Gb. Rpt No. 58760.



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