

## REPORT ON BOILERS.

No. 56030

7. 28. 29 Dec.  
 18. 22. 26 Jan.  
 19. 6. 10. 18

Received at London Office

28 AUG 1935

Date of writing Report 10 When handed in at Local Office 22. 8. 1935 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 23. 8. 35 Last Survey 17-8-1935  
 on the new steel 315 "ARGENTINE TRANSPORT" (Number of Visits 95) Tons {Gross 4684 Net 2825  
 Built at Glasgow By whom built Blythwood S.B.C. Yard No. 35 When built 1935  
 Engines made at Glasgow By whom made David Rowan & Co. Ltd. Engine No. 966 When made 1935  
 Boilers made at Glasgow By whom made David Rowan & Co. Ltd. Boiler No. 966 When made 1935  
 Nominal Horse Power 362 Owners Port belonging to London

LLOYD'S  
 REGISTRY  
 LONDON  
 10-6-35

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

Manufacturers of Steel L. Chilles Ltd.  
 Total Heating Surface of Boilers 4642 sq. ft. Is forced draught fitted yes (Letter for Record (S) )  
 No. and Description of Boilers Two single ended Coal or Oil fired coal Working Pressure 220  
 Tested by hydraulic pressure to 380 Date of test 1-3-35 No. of Certificate 19517 Can each boiler be worked separately yes  
 Area of Firegrate in each Boiler 53.75 sq. ft. No. and Description of safety valves to each boiler Two, Improved High Lift  
 Area of each set of valves per boiler {per Rule 6190" as fitted 6280" Pressure to which they are adjusted 220 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 21" Is oil fuel carried in the double bottom under boilers no  
 Smallest distance between shell of boiler and tank top plating 2-0" Is the bottom of the boiler insulated yes  
 Largest internal dia. of boilers 15-0" Length 11-6" Shell plates: Material Steel Tensile strength 29-33 tons  
 Thickness 1 7/16" Are the shell plates welded or flanged no Description of riveting: circ. seams {end inter. 10" }  
 Joints: 10 B.S. TR Diameter of rivet holes in {circ. seams F 1 3/8" B 1 1/2" long. seams 1 1/2" Pitch of rivets {F 3.396" B 4.125" }  
 Percentage of strength of circ. end seams {plate F 59.5 B 63.6 rivets F 48.4 B 47.3 Percentage of strength of circ. intermediate seam {plate 85.36 rivets 89 }  
 Percentage of strength of longitudinal joint {plate 85.36 rivets 89 combined 88.5 Working pressure of shell by Rules 223  
 Thickness of butt straps {outer 1 3/32" inner 1 7/32" No. and Description of Furnaces in each Boiler Three Horizontal  
 Material Steel Tensile strength 26-30 tons Smallest outside diameter 3'-8 1/2"  
 Length of plain part {top bottom } Thickness of plates {crown 4 3/4" bottom 6 1/4" Description of longitudinal joint welded  
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 222  
 Plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 1/2" Pitch of stays 22" x 17 3/4"  
 Are stays secured 10 N Working pressure by Rules 220  
 Front plates: Material {front Steel back " Tensile strength {26-30 tons Thickness {15" 25" }  
 Pitch of stay tubes in nests 9-6" Pitch across wide water spaces 14" Working pressure {front 229 back 236 }  
 Stays to combustion chamber tops: Material Steel Tensile strength 28-32 tons Depth and thickness of girder  
 Centre 2 @ 9 1/8" x 7 1/8" Length as per Rule 34 1/2" Distance apart 8 1/2" No. and pitch of stays  
 Each 3 @ 8 1/4" Working pressure by Rules 225 Combustion chamber plates: Material Steel  
 Tensile strength 26-30 tons Thickness: Sides 11" Back 23 3/32" Top 11" Bottom 13" 16"  
 Pitch of stays to ditto: Sides 8 1/2" x 8 1/4" Back 10" x 8" Top 8 1/2" x 8 1/4" Are stays fitted with nuts or riveted over nuts  
 Working pressure by Rules 221 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 13" 16"  
 Pitch of stays at wide water space 13 7/16" Are stays fitted with nuts or riveted over nuts  
 Working Pressure 220 Main stays: Material Steel Tensile strength 28-32 tons  
 At body of stay, 3 1/4" x 3" No. of threads per inch 6 Area supported by each stay 390" & 356"  
 Over threads. Working pressure by Rules 237 & 221 Screw stays: Material Steel Tensile strength 26-30 tons  
 At turned off part, 1 9/8" 1 3/4" 1 7/8" 2" No. of threads per inch 9 Area supported by each stay 1870" 1 3/4" = 800"

1666-0078



Working pressure by Rules 221 & 224 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 1 7/8" }  
No. of threads per inch 9 Area supported by each stay 940" Working pressure by Rules 227  
Tubes: Material Steel External diameter { Plain 3" Stay 3" } Thickness { 8 w.g. 1/4" 5/16" 3/8" } No. of threads per inch 9  
Pitch of tubes 4 3/16" x 4 1/8" Working pressure by Rules 250 Manhole compensation: Size of opening in  
shell plate 19 1/2" x 15 1/2" Section of compensating ring 10 1/2" x 1 7/16" No. of rivets and diameter of rivet holes 34 @ 1 1/2"  
Outer row rivet pitch at ends 10 1/4" 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 Smoked tube Manufacturers of { For particulars see NWC cert C 2496 copy herewith }  
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 yes  
Area of each safety valve 1.770" Are the safety valves fitted with easing gear yes Working pressure as per  
Rules 227 Pressure to which the safety valves are adjusted 227 Hydraulic test pressure  
tubes \_\_\_\_\_, castings \_\_\_\_\_ and after assembly in place 440 lbs Are drain cocks or valves fitted  
to free the superheater from water where necessary yes

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes  
The foregoing is a correct description,  
For David Rowan & Co. Ltd Manufactured by  
Arch. H. Grierson

Dates { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith yes  
of Survey { while building } { During erection on board vessel - - } (If not state date of approval.)  
SEE ACCOMPANYING MACHINERY REPORT.

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. \_\_\_\_\_

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, satisfactorily fitted in the vessel and their safety valves adjusted under steam.

Survey Fee ... £ : : When applied for, 19  
Travelling Expenses (if any) £ : : When received, 19

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