

# REPORT ON BOILERS.

No. 49728

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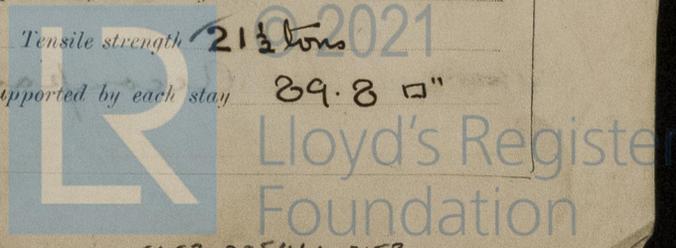
Date of writing Report 1929 When handed in at Local Office 21 10 1929 Port of Glasgow  
 No. in Reg. Book. Survey held at Glasgow Date, First Survey 26. 4. 29 Last Survey 16. 10. 1929  
 on the new steel S/S "COMEDIAN". (Number of Visits 64) Tons Gross 5122 Net 3162  
 Master Built at Glasgow By whom built Lhesbonnell & Co. Ltd. Yard No. 415 When built 1929  
 Engines made at Glasgow By whom made David Rowan & Co. Ltd. Engine No. 920 When made 1929  
 Boilers made at Glasgow By whom made David Rowan & Co. Ltd. Boiler No. 920 When made 1929  
 Nominal Horse Power 464 Owners T & G. Harrison Ltd. Port belonging to Liverpool.

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

Manufacturers of Steel David Beville & Sons Ltd. (Letter for Record (h) ✓)  
 Total Heating Surface of Boilers 7706 ft<sup>2</sup> Is forced draught fitted no Coal or Oil fired coal ✓  
 No. and Description of Boilers two double ended Working Pressure 200  
 Tested by hydraulic pressure to 350 Date of test 9-8-29 No. of Certificate 18391 Can each boiler be worked separately yes  
 Area of Firegrate in each Boiler 105 ft<sup>2</sup> No. and Description of safety valves to each boiler two direct spring.  
 Area of each set of valves per boiler {per Rule 22-40" as fitted 25-12" Pressure to which they are adjusted 205 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 1'-6" Is oil fuel carried in the double bottom under boilers no  
 Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated yes  
 Largest internal dia. of boilers 15'-2 23/32" Length 16'-6" Shell plates: Material steel Tensile strength 28-32 tons  
 Thickness 1 23/64" & 1 1/8" Are the shell plates welded or flanged no Description of riveting: circ. seams {end UR inter. TR  
 long. seams NBS, TR Diameter of rivet holes in {circ. seams F 1 1/16" C 1 1/16" B 1 1/16" Pitch of rivets {inner course 9 25/32" outer 9 13/16"  
 Percentage of strength of circ. end seams {plate F 60.8 B 64.2 63.6 rivets F 48.8 B 72.8 49 Percentage of strength of circ. intermediate seam {plate 63.6 64.2 rivets 49 72.8  
 Percentage of strength of longitudinal joint {plate 85.3 outer 85.3 rivets 94.2 92.5 Working pressure of shell by Rules 200  
 Thickness of butt straps {inter all 1 1/32" inner all 1 5/32" No. and Description of Furnaces in each Boiler Six Morrison.  
 Material steel Tensile strength 26-30 tons Smallest outside diameter 3'-7 3/16"  
 Length of plain part {top bottom ✓ Thickness of plates {crown 1 1/32" bottom 1 1/32" Description of longitudinal joint welded ✓  
 Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 200 ✓  
 End plates in steam space: Material steel Tensile strength 26-30 tons Thickness 1 3/8" Pitch of stays 22" x 20"  
 How are stays secured BN Working pressure by Rules 200 ✓  
 Tube plates: Material {front steel back " Tensile strength {26-30 tons Thickness {1" 7/8" ✓  
 Mean pitch of stay tubes in nests 11 3/4" Pitch across wide water spaces 14 7/8" Working pressure {front 230 back 200  
 Girders to combustion chamber tops: Material steel Tensile strength 28-32 tons Depth and thickness of girder  
 at centre 2 @ 10 3/4" x 1 1/8" Length as per Rule 3'-6 1/2" Distance apart 8 1/8" No. and pitch of stays  
 in each 3 @ 10 3/8" Working pressure by Rules 200 Combustion chamber plates: Material steel  
 Tensile strength 26-30 tons Thickness: Sides 23/32" Back - Top 23/32" Bottom 23/32"  
 Pitch of stays to ditto: Sides 10 3/8" x 8 1/8" Back - Top 10 3/8" x 8 1/8" Are stays fitted with nuts or riveted over nuts  
 Working pressure by Rules 200 Front plate at bottom: Material steel Tensile strength 26-30 tons  
 Thickness 1" Lower back plate: Material - Tensile strength - Thickness -  
 Pitch of stays at wide water space - Are stays fitted with nuts or riveted over -  
 Working Pressure - Main stays: Material steel Tensile strength 28-32 tons  
 Diameter {At body of stay, 3 1/4" & 3" or Over threads No. of threads per inch 6 Area supported by each stay 460 & 385 in<sup>2</sup>  
 Working pressure by Rules 201 Screw stays: Material iron Tensile strength 21 1/2 tons  
 Diameter {At turned off part, 1 3/4" or Over threads No. of threads per inch 9 Area supported by each stay 89.8 in<sup>2</sup>

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?



# REPORT ON BOILERS

Working pressure by Rules 202 Are the stays drilled at the outer ends no Margin stays: Diameter At turned off part or Over threads

No. of threads per inch - Area supported by each stay - Working pressure by Rules -

Tubes: Material Iron External diameter Plain 3 1/2" Thickness 7 WS 3/8" No. of threads per inch 9

Pitch of tubes 4 1/16" x 4 5/8" Working pressure by Rules 260 Manhole compensation: Size of opening in shell plate 19 1/2" x 15 1/2" Section of compensating ring 10 1/4" x 1 3/8" No. of rivets and diameter of rivet holes 34 @ 1 1/16"

Outer row rivet pitch at ends 9 1/8" Depth of flange if manhole flanged 3" Steam Dome: Material none

Tensile strength 212 Thickness of shell 1 1/2" Description of longitudinal joint -

Diameter of rivet holes 1/16" Pitch of rivets 1 1/2" Percentage of strength of joint 100% Plate Iron

Internal diameter 18 1/2" Working pressure by Rules 260 Thickness of crown 1 1/2" No. and diameter of stays 10 @ 1/2"

How connected to shell by stays Inner radius of crown 3" Working pressure by Rules 260 Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell -

Type of Superheater Smoke tube Manufacturers of See Manhole Report 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 -

Area of each safety valve 1.770" Are the safety valves fitted with casing gear yes Working pressure as per Rules 207

Pressure to which the safety valves are adjusted 207 Hydraulic test pressure: 400 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 Manufacturer.  
Arch. W. Grierson

Dates of Survey See Accompanying Are the approved plans of boiler and superheater forwarded herewith yes  
 while building machinery Report (If not state date of approval.) 8/13/29

Total No. of visits 64

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

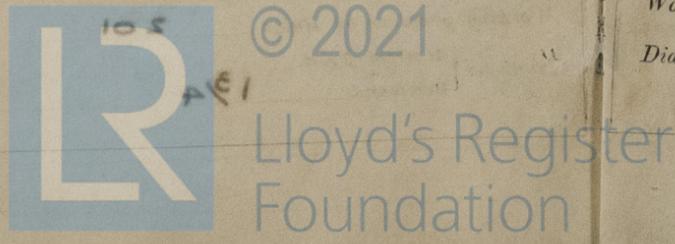
The materials and workmanship are good.  
The boilers have been constructed under Special Survey in accordance with the Rules.  
Satisfactorily fitted in the vessel and their safety valves adjusted under steam.

A. G. G.  
21/10/29

Survey Fee £ 192 When applied for 192  
 Travelling Expenses (if any) £ - When received 192

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

Committee's Minute GLASGOW 22 OCT 1929  
 Assigned See Accompanying Machinery Report



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