

# REPORT ON BOILERS.

No. 51738

Received at London Office 23 SEP 1931

Date of writing Report 10 When handed in at Local Office 14. 8. 1931 Port of Glasgow  
 No. in Survey held at Glasgow Date First Survey 9. 6. 31 Last Survey 19. 31  
 Reg. Book. 10021 on the SSELK HOUND (Number of Visits 17) Tons {Gross 729 Net 301  
 Master Built at Bristol By whom built L. Hill & Sons Ltd. Yard No. When built 1929-10  
 Engines made at Nürnberg, Augsburg By whom made Maschfkt Augsburg Engine No. When made  
 Boilers made at Glasgow By whom made Warrick Rowan & Co. Ltd. Boiler No. 386 When made 1931  
 Nominal Horse Power 226 106 Owners Grangemount Dockyard Co. Ltd. Port belonging to London

## MAIN.

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

Manufacturers of Steel Bobillies Ltd. (Letter for Record (6))  
 Total Heating Surface of Boilers 2040 sq ft Is forced draught fitted no Coal or Oil fired oil  
 No. and Description of Boilers one single ended Working Pressure 180  
 Tested by hydraulic pressure to 320 (Date of test 11.8.31 No. of Certificate 19014 Can each boiler be worked separately ✓  
 Area of Firegrate in each Boiler 590 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 15'-0" Length 10'-6" 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 WB lap inter. F 3.162" B 3.388"  
 long. seams WBSTR Diameter of rivet holes in {circ. seams F 1 3/16" B 1 1/4" Pitch of rivets {F 3.162" B 3.388" 8 3/4"  
 Percentage of strength of circ. end seams {plate F 62.4 B 63.1 rivets F 46.8 B 48.4 Percentage of strength of circ. intermediate seam {plate rivets ✓  
 Percentage of strength of longitudinal joint {plate 85.7 rivets 87.6 combined 88.9 Working pressure of shell by Rules 180  
 Thickness of butt straps {outer 2 3/32" inner 1 1/32" No. and Description of Furnaces in each Boiler three Deighton's  
 Material steel Tensile strength 26-30 tons Smallest outside diameter 46 5/32"  
 Length of plain part {top bottom ✓ Thickness of plates {crown 3 1/2" 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 181  
 End plates in steam space: Material steel Tensile strength 26-30 tons Thickness 1 3/16" Pitch of stays 17 1/2" x 2 1/2"  
 How are stays secured WN steel Working pressure by Rules 181  
 Tube plates: Material {front steel back Tensile strength {26-30 tons Thickness {2 7/32" 3/4"  
 Mean pitch of stay tubes in nests 10" Pitch across wide water spaces 14" Working pressure {front 181 back 201  
 Girders to combustion chamber tops: Material steel Tensile strength 28-32 tons Depth and thickness of girder  
 at centre 2 @ 7 3/8" x 7/8" Length as per Rule 32'-6" Distance apart 8 5/8" No. and pitch of stays  
 in each 2 @ 10 3/8" Working pressure by Rules 180 Combustion chamber plates: Material steel  
 Tensile strength 26-30 tons Thickness: Sides 4 1/16" Back 2 1/32" Top 1 1/16" Bottom 1 1/16"  
 Pitch of stays to ditto: Sides 10 3/8" x 8 5/8" Back 9 1/4" x 8 3/4" Top 10 3/8" x 8 5/8" Are stays fitted with nuts or riveted over nuts  
 Working pressure by Rules 185 Front plate at bottom: Material steel Tensile strength 26-30 tons  
 Thickness 2 7/32" Lower back plate: Material steel Tensile strength 26-30 tons Thickness 3/4"  
 Pitch of stays at wide water space 13 1/4" Are stays fitted with nuts or riveted over nuts  
 Working Pressure 180 Main stays: Material steel Tensile strength 28-32 tons  
 Diameter {At body of stay, or Over threads 2 3/4" No. of threads per inch 6 Area supported by each stay 356 sq in  
 Working pressure by Rules 184 Screw stays: Material steel Tensile strength 26-30 tons  
 Diameter {At turned off part, or Over threads 1 5/8" & 1 3/4" No. of threads per inch 9 Area supported by each stay 80.9 sq in & 90.7 sq in

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Working pressure by Rules **184 & 203** Are the stays drilled at the outer ends **no** Margin stays: Diameter { At turned off part, or Over threads } **1 3/4"**  
 No. of threads per inch **9** Area supported by each stay **98.4 sq"** Working pressure by Rules **184**  
 Tubes: Material **Iron** External diameter { Plain **3 1/4"** Stay **3 1/4"** Thickness { **9/16"** **3/8"** } No. of threads per inch **9**  
 Pitch of tubes **4 1/2" x 4 7/16"** Working pressure by Rules **180** Manhole compensation: Size of opening in shell plate **15 1/2" x 19 1/2"** Section of compensating ring **9 1/2" x 1 3/16"** No. of rivets and diameter of rivet holes **34 @ 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 **0.81** Are the safety valves fitted with casing gear **no** Working pressure as per Rules **0.81** Pressure to which the safety valves are adjusted **one spring over** Hydraulic test pressure: tubes castings **no** and after assembly in place **0.55** Are drain cocks or valves fitted to free the superheater from water where necessary **no**  
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with **no**

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

Dates of Survey { During progress of work in shops - - } **1931 June: 9, 10, 11, 16, 17, 24, 29, 30** Are the approved plans of boiler and superheater forwarded herewith **yes**  
 while building { During erection on board vessel - - } **July: 1, 2, 3, 14 Aug: 3, 5, 6, 10, 11** Total No. of visits **17**

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 in accordance with the Rules.

The boiler will be fitted in the vessel at Grangemouth.

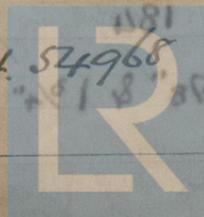
Survey Fee £ **13 : 12** When applied for, **22 SEP 1931**  
 Travelling Expenses (if any) £ **nil** When received, **25.9.31**

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

Committee's Minute **GLASGOW 22 SEP 1931**

Assigned **Deferred**

See G.L. Rpt. 54968



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