

REPORT ON BOILERS.

No. 57064

Received at London Office

27 MAY 1936

Date of writing Report 19 When handed in at Local Office 25.5.36 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 3.3.36 Last Survey 20.5.1936
 on the new steel (Number of Visits 10) Gross Tons Net
 Master Built at Shadrecht By whom built Van der Klop Yard No. 520 When built 1936
 Engines made at Abdeen By whom made Alex Hall & Co Ltd. Engine No. When made 1936
 Boilers made at Glasgow By whom made Wain Rowan & Co Ltd. Boiler No. 420 When made 1936
 Nominal Horse Power Owners James Dredging Co Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Plates & Shells Ltd. Stay-Steel Company of Scotland Ltd (Letter for Record (S) ✓)
 Total Heating Surface of Boilers 1900 sq ft Is forced draught fitted no Coal or Oil fired oil
 No. and Description of Boilers one single ended Working Pressure 190
 Tested by hydraulic pressure to 335 Date of test 26.5.36 No. of Certificate 19733 Can each boiler be worked separately -
 Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 Improved high lift.
 Area of each set of valves per boiler {per Rule 7.920" as fitted 7.940" Pressure to which they are adjusted 195 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 2'-0" Is oil fuel carried in the double bottom under boilers no
 Smallest distance between shell of boiler and tank top plating no tank Is the bottom of the boiler insulated no
 Largest internal dia. of boilers 14'-0" Length 11'-0" Shell plates: Material steel Tensile strength 29.33 tons
 Thickness 1 1/4" Are the shell plates welded or flanged no Description of riveting: circ. seams {end 11/16" inter 11/16" long. seams 10 B 3 TR Diameter of rivet holes in {circ. seams F 1 3/16" 6 1/4" long. seams 1 1/4" Pitch of rivets {F 3.2" 8 3/16" 8 3/16"
 Percentage of strength of circ. end seams {plate F 62.9 862.3 rivets F 47.1 850.4 Percentage of strength of circ. intermediate seam {plate 85.4 rivets 90.4
 Percentage of strength of longitudinal joint {plate 85.4 rivets 90.4 combined 89 Working pressure of shell by Rules 190
 Thickness of butt straps {outer 7/8" inner 1" No. and Description of Furnaces in each Boiler Two Beighton
 Material steel Tensile strength 26-30 tons Smallest outside diameter 4'-1 3/4"
 Length of plain part {top bottom Thickness of plates {crown 1 1/4" bottom 1 1/4" Description of longitudinal joint welded
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 190
 End plates in steam space: Material steel Tensile strength 26-30 tons Thickness 1 1/2" Pitch of stays 18" x 20"
 How are stays secured 10 N Working pressure by Rules 191
 Tube plates: Material {front steel back " Tensile strength {26-30 tons Thickness {3/32" 3/32"
 Mean pitch of stay tubes in nests 10 9/16" Pitch across wide water spaces 14 1/4" Working pressure {front 195 back 196
 Girders to combustion chamber tops: Material steel Tensile strength 28-32 tons Depth and thickness of girder
 at centre 2 @ 9" x 7/8" Length as per Rule 2'-10 3/8" Distance apart 9 1/2" No. and pitch of stays
 in each 3 @ 8 1/4" Working pressure by Rules 195 Combustion chamber plates: Material steel
 Tensile strength 26-30 tons Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 25/32"
 Pitch of stays to ditto: Sides 8 1/4" x 9 1/2" Back 8 1/2" x 9 1/4" Top 8 1/4" x 9 1/2" Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules 190 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 25/32
 Pitch of stays at wide water space 13 1/4" Are stays fitted with nuts or riveted over nuts
 Working Pressure 200 Main stays: Material steel Tensile strength 28-32 tons
 Diameter {At body of stay, or Over threads 3" & 2 3/4" No. of threads per inch 6 Area supported by each stay 382 sq in & 327 sq in
 Working pressure by Rules 206 & 201 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 78.6 sq in

Working pressure by Rules 194 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 955" Working pressure by Rules 190
Tubes: Material Iron External diameter { Plain 3 1/2" Thickness { 8 w.g. No. of threads per inch 9
Pitch of tubes 4 7/8" x 4 3/4" Working pressure by Rules 215 Manhole compensation: Size of opening
shell plate 19 1/2" x 15 1/2" Section of compensating ring 9 1/2" x 1 1/4" No. of rivets and diameter of rivet holes 34 @ 1 1/4"
Outer row rivet pitch at ends 8 7/8" 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 _____ 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 { During progress of work in shops - - 1936 Mar. 3. 5. 16. 31 Apr. 7. Are the approved plans of boiler and superheater forwarded herewith yes
while building { During erection on board vessel - - 9. 20 May. 8. 11. 12. 20 (If not state date of approval.)
Total No. of visits 10

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.

The boiler will be fitted on board the vessel at Aberdeen.

25/5/36

Survey Fee ... £ 12 : 14 :

Travelling Expenses (if any) £

When applied for, 26 MAY 1936
LON 9/6/36.
When received, 19

Schwan

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 26 MAY 1936

Assigned TRANSMIT TO LONDON



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Foundation