

REPORT ON BOILERS.

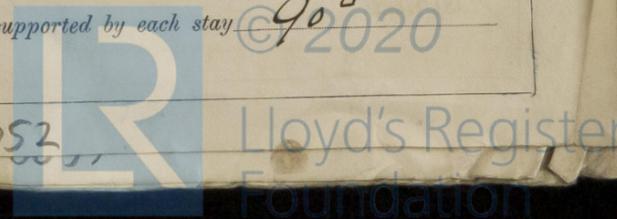
No. H3156

Received at London Office WFO. 21 NOV. 1923

Date of writing Report 102 When handed in at Local Office 19-11-102 Port of Glasgow
 No. in Survey held at Dalmuir Date, First Survey 2nd July Last Survey 19 October 1923
 Reg. Book. Steel marine Boiler. S. WHEATER & CO (Number of Visits 15) Gross Tons Net Tons
 Master Built at Appleton By whom built Hansen & Co. Yard No. 9 When built 1924
 Engines made at Coatbridge By whom made A. Beardmore & Co. Engine No. 593 When made 1923
 Boilers made at Dalmuir By whom made A. Beardmore & Co. Boiler No. N360 When made 1923
 Nominal Horse Power Owners Manuel Spuler & Co. Ltd. Port belonging to Cardiff

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel A. Beardmore & Co. (Letter for Record S)
 Total Heating Surface of Boilers 2005 sq ft Is forced draught fitted no Coal or Oil fired coal
 No. and Description of Boilers Single end cylindrical multitubular Working Pressure 130 lbs
 Tested by hydraulic pressure to 260 lbs Date of test 19/10/23 No. of Certificate 16358 Can each boiler be worked separately ✓
 Area of Firegrate in each Boiler 61 sq ft No. and Description of safety valves to each boiler 2 Spring loaded
 Area of each set of valves per boiler { per Rule 17.2 sq ft as fitted 19.2 sq ft Pressure to which they are adjusted 135 lbs Are they fitted with easing gear no
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no
 Smallest distance between boilers or uptakes and bunkers or woodwork 5'0" Is oil fuel carried in the double bottom under boilers no
 Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated no
 Largest internal dia. of boilers 14'6" Length 10'6" Shell plates: Material Steel Tensile strength 28/32 tons
 Thickness 29/32" Are the shell plates welded or flanged no Description of riveting: circ. seams { end double inter. }
 long. seams triple Diameter of rivet holes in { circ. seams 1" long. seams 1" } Pitch of rivets { 7" }
 Percentage of strength of circ. end seams { plate 66.5 rivets 47.5 } Percentage of strength of circ. intermediate seam { plate 85.7 rivets 95.0 } Working pressure of shell by Rules 135 lbs
 Percentage of strength of longitudinal joint { plate 90.4 rivets }
 Thickness of butt straps { outer 11/16" inner 13/16" } No. and Description of Furnaces in each Boiler 3 Plain
 Material Steel Tensile strength 26/30 tons Smallest outside diameter 44"
 Length of plain part { top 6'6" bottom 6'6" } Thickness of plates { crown 11/16" bottom 11/16" } Description of longitudinal joint welded
 Dimensions of stiffening rings on furnace or c.c. bottom 3 1/2" x 3 1/2" x 1/16" Working pressure of furnace by Rules 142 lbs
 End plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 1/32" Pitch of stays 19" x 19"
 How are stays secured nuts Working pressure by Rules 136 lbs
 Tube plates: Material { front Steel back Steel } Tensile strength { 26/30 tons } Thickness { 3/4" x 5/8" doubling }
 Mean pitch of stay tubes in nests 14 1/4" x 9 1/2" Pitch across wide water spaces 14 1/2" Working pressure { front 130 lbs back 142 lbs }
 Girders to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder at centre 7 3/4" x 1 1/4" Length as per Rule 29 5/8" Distance apart 9 1/4" No. and pitch of stays in each 2 of 9" Working pressure by Rules 133 lbs Combustion chamber plates: Material Steel
 Tensile strength 26/30 tons Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"
 Pitch of stays to ditto: Sides 9" x 9 1/2" Back 9 1/2" x 9 1/2" Top 9" x 9 1/4" Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules 150 lbs Front plate at bottom: Material Steel Tensile strength 26/30 tons
 Thickness 3/4" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 3/4"
 Pitch of stays at wide water space 14 1/2" Are stays fitted with nuts or riveted over nuts
 Working Pressure 151 lbs Main stays: Material Steel Tensile strength 28/32 tons
 Diameter { At body of stay, 2 5/8" No. of threads per inch 6 Area supported by each stay 361 sq in }
 Working pressure by Rules 137 lbs Screw stays: Material Steel Tensile strength 26/30 tons
 Diameter { At turned off part, 1 1/2" No. of threads per inch 9 Area supported by each stay 90 sq in }



Working pressure by Rules 139 lbs. Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 5/8" or Over threads 1 5/8"

No. of threads per inch 9 Area supported by each stay 114" Working pressure by Rules 133 lbs.

Tubes; Material iron External diameter { Plain 3 1/2" Stay 3 1/2" Thickness { 9 L.S.G. No. of threads per inch 9

Pitch of tubes 4 3/4" x 4 5/8" Working pressure by Rules 165 lbs. Manhole compensation: Size of opening

shell plate 20" x 16" Section of compensating ring 30" x 26" x 1" No. of rivets and diameter of rivet holes 42 7/16"

Outer row rivet pitch at ends 7" Depth of flange if manhole flanged 3/4" Steam Dome: Material iron

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

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 23 inclusive for boilers been complied with no

Survey request form FOR WILLIAM BEARDMORE & CO., LIMITED

No. 2624 attached

W. D. Gray The foregoing is a correct description, Manufacturer

Dates of Survey { During progress of 1923 Jul 2, 24 Aug 6, 28 Sep 3, 10, 19, 25, 27 Oct 1, 5 Are the approved plans of boiler and superheater forwarded herewith yes (If not state date of approval.)

while building { During erection on board vessel - - - } Total No. of visits 15

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

This boiler has been built under Special Survey and the material tested in accordance with the rules of this Society. The material and workmanship, as far as can be seen, are sound and good.

This boiler is being shipped to Applinore to be fitted on board the vessel.

This boiler has now been fitted & secured on board, main & under steam & its safety valve adjusted.

Survey Fee £ 13 : 6 : 0 When applied for, 20/11/1923

Travelling Expenses (if any) £ ... : : When received, Jan 31st 1924 (16-6-0)

John W. Gray A. Campbell
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 20 NOV 1923 FRI. FEB 8 1924

Assigned Deferred

Certificate (if required) to be sent to Glasgow

Form No. 1A

Sails

