

REPORT ON BOILERS.

Received at London Office WED. JUN. 20 1923

Date of writing Report 8th June 1923 When handed in at Local Office 9th June 1923 Port of Glasgow

No. in Reg. Book. Survey held at Glasgow Date, First Survey 12th March Last Survey 8th June 1923

on the Single Ended Marine Boiler No. 129 S. WHEATHILL (Number of Visits 6) Tons {Gross Net

Master Built at Bideford Devon By whom built Hansen S. & R. O. A. S. Yard No. 7 When built 1923

Engines made at Coatbridge By whom made Wm Beardmore & Co. Ltd. Engine No. 590 When made 1923

Boilers made at Parkhead By whom made Wm Beardmore & Co. Ltd. Boiler No. 129 When made 1923

Nominal Horse Power Owners Messrs Spiller & Baker Port belonging to Cardiff

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Beardmore & Co. D. Colville & Sons J. Spencer & Sons Ltd. (Letter for Record S)

Total Heating Surface of Boilers 1331 Sq. Feet Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers 1 Single Ended Return Tube Working Pressure 130 lbs.

Tested by hydraulic pressure to 245 lbs. Date of test 8.6.23. No. of Certificate 16245. Can each boiler be worked separately

Area of Firegrate in each Boiler 40.25 sq. ft. No. and Description of safety valves to each boiler 2 Spring loaded

Area of each set of valves per boiler {per Rule 10.6 as fitted 11.86 Pressure to which they are adjusted 135 lbs. 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 6" 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

Largest internal dia. of boilers 12' 0" Length 10' 6" Shell plates: Material Steel Tensile strength 28/32 TONS

Thickness 3/4" Are the shell plates welded or flanged No Description of riveting: circ. seams {end D.R. inter. 3.55" long seams T.R. D.B.S. Diameter of rivet holes in {circ. seams 15/16" long seams 13/16" Pitch of rivets {6 1/8"

Percentage of strength of circ. end seams {plate 73.59 rivets 42.56 Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 86.4 rivets 84.1 combined 117.9 Working pressure of shell by Rules 135.

Thickness of butt straps {outer 1 1/16" inner 1 1/16" No. and Description of Furnaces in each Boiler Two Plain

Material Steel Tensile strength 26/30 TONS Smallest outside diameter 3' 4 3/8"

Length of plain part {top bottom 86" Thickness of plates {crown bottom 1 1/16" Description of longitudinal joint Weld.

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 134.

End plates in steam space: Material Steel Tensile strength 26/30 TONS Thickness 29/32" Pitch of stays 17" x 15 3/4"

How are stays secured Double nuts & thin washers Working pressure by Rules 146

Tube plates: Material {front back Steel Tensile strength {26/30 TONS Thickness {29/32" 3/4"

Mean pitch of stay tubes in nests 11.56" Pitch across wide water spaces 14 1/2" Working pressure {front 222 back 150

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 TONS Depth and thickness of girder at centre 6 3/4" x 5/8" double Length as per Rule 28 21/32" Distance apart 9" No. and pitch of stays in each 2 @ 10"

Working pressure by Rules 140. Combustion chamber plates: Material Steel Tensile strength 26/30 TONS Thickness: Sides 19/32" Back 12/32" Top 19/32" Bottom 19/32"

Pitch of stays to ditto: Sides 10" x 9" Back 10" x 9 1/4" Top 10" x 9" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 130. 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 29/32"

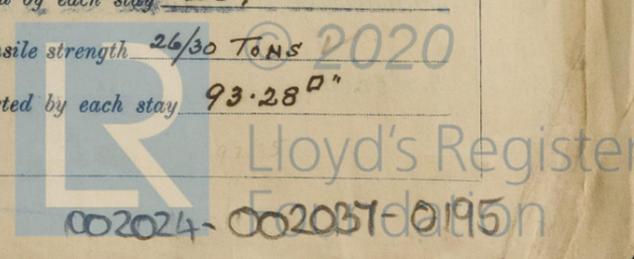
Pitch of stays at wide water space 14 1/2" x 9 1/4" Are stays fitted with nuts or riveted over Nuts

Working Pressure 138. Main stays: Material Steel Tensile strength 28/32 TONS

Diameter {At body of stay, or Over threads 2 3/8" No. of threads per inch 6 Area supported by each stay 257 sq. in.

Working pressure by Rules 153. Screw stays: Material Steel Tensile strength 26/30 TONS

Diameter {At turned off part, or Over threads 1 1/2" + 1 5/8" No. of threads per inch 9 Area supported by each stay 93.28 sq. in.



If not, state whether, and when, one will be sent? Report also sent on the shell of the ship?

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REPORT ON BOILERS

Working pressure by Rules 134 Are the stays drilled at the outer ends No. Margin stays: Diameter $\left\{ \begin{array}{l} \text{At turned off part,} \\ \text{or} \\ \text{Over threads} \end{array} \right. \frac{15}{8}$
 No. of threads per inch 9 Area supported by each stay 120 Working pressure by Rules 130
 Tubes: Material Cap'd Iron External diameter $\left\{ \begin{array}{l} \text{Plain} \\ \text{Stay} \end{array} \right. \frac{3}{2}$ Thickness $\left\{ \begin{array}{l} \frac{9}{16} \\ \frac{1}{4} \end{array} \right. \frac{9}{16}$ No. of threads per inch 9
 Pitch of tubes 4 $\frac{1}{8}$ " x 4 $\frac{5}{8}$ " Working pressure by Rules 165 Manhole compensation: Size of opening in
 shell plate 16" x 12" Section of compensating ring 4 $\frac{5}{8}$ " x 1" No. of rivets and diameter of rivet holes 42 - $\frac{15}{16}$ "
 Outer row rivet pitch at ends 4" Depth of flange if manhole flanged 3 $\frac{5}{16}$ " Steam Dome: Material None Fitted
 Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
 Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint $\left\{ \begin{array}{l} \text{Plate} \\ \text{Rivets} \end{array} \right.$
 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

Manufacturers of $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel castings} \end{array} \right.$ _____
 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 _____

The foregoing is a correct description,
 FOR WILLIAM BEARDMORE & CO. LIMITED. Manufacturer.
A. B. Blake

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of work in shops} \\ \text{while building} \end{array} \right. \left. \begin{array}{l} \text{of } 1923 \text{ Mar } 12 \text{ Apr } 5, 17, 27 \text{ May } 14 \text{ June } 8 \\ \text{board vessel} \end{array} \right.$ Are the approved plans of boiler and superheater forwarded herewith
 (If not state date of approval.)
 Total No. of visits 6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been built under special survey in accordance with the Approved Plans & Rules of the Society. The materials and workmanship are good. The boiler is being dispatched to Bideford to be installed on board the vessel.

This boiler has been fitted & secured on board, examined under steam & its safety valves adjusted

Survey Fee ... £ 8 : 16 : 0 When applied for Monthly Account 192
 Travelling Expenses (if any) £ : : When received. 192

John Barr, John W. Coyne
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 JUN 1923

TUE. 20 NOV. 1923

Assigned _____ TRANSMIT TO LONDON

