

REPORT ON BOILERS.

No. 42824

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. 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 150 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" 6 1/8"

long. seams T.R. D.B.S. Diameter of rivet holes in { circ. seams 15/16" long. seams 13/16" Pitch of rivets { 3.55" 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 Working pressure of shell by Rules 135.

Thickness of butt straps { outer 11/16" inner 11/16" 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 86" bottom 86" Thickness of plates { crown 11/16" bottom 11/16" 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 19" x 15 3/4"

How are stays secured Double Ribs & Thin Washers Working pressure by Rules 146

Tube plates: Material { front Steel 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 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 19/32" 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 Ribs

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 Ribs

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

Diameter { At body of stay, 2 3/8" No. of threads per inch 6 Area supported by each stay 254 sq. in.

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

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

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Lloyd's Register

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Working pressure by Rules 134 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 120 Working pressure by Rules 130

Tubes: Material Cap'd Iron External diameter { Plain 3 1/2 Stay 3 1/2 Thickness { 9 L.S. 9 1/4 ✓ 1/16 No. of threads per inch 9

Pitch of tubes 4 5/8" x 4 5/8" Working pressure by Rules 165 Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 4 5/8" x 1" No. of rivets and diameter of rivet holes 42 - 15/16

Outer row rivet pitch at ends 4" Depth of flange if manhole flanged 3 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 { 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 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

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

Dates of Survey { During progress of 1923 Mar 12 Apr 5 '17.27 May 14 June 8 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building { During erection on board vessel - - - 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. Gwynne
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 JUN 1923

Assigned TRANSMIT TO LONDON