

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
Reg. Book.

Survey held at

Dalmuir.

Date, First Survey

2nd July

Last Survey

19. October 1923.

(Number of Visits

15.)

Gross

Net

on the

Steel marine Boiler. S. WHEATCROFT

Master

Built at

Appledore

By whom built

Hansen & Co.

Yard No.

9

When built

1924

Engines made at

Coatbridge

By whom made

R. Beaman & Co.

Engine No.

593

When made

1923.

Boilers made at

Dalmuir.

By whom made

R. Beaman & Co.

Boiler No.

N360

When made

1923.

Nominal Horse Power

Owners

Mann & Spuler & Co. Ltd. Port belonging to Cardiff

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel R. Beaman & 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 2 9/32" Are the shell plates welded or flanged no Description of riveting: circ. seams {end double inter. 2.986" long. seams 7"

Diameter of rivet holes in {circ. seams 1" long. seams 1" Pitch of rivets {plate 7" rivets

Percentage of strength of circ. end seams {plate 66.5 rivets 47.5 Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 85.7 rivets 95.0 combined 90.4 Working pressure of shell by Rules 135 lbs

Thickness of butt straps {outer 1 1/16" inner 3/16" 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 1 1/16" bottom 1 1/16" 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 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 3/4"

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"
Over threads 1 3/8"
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" Thickness { 9 L.S.G. No. of threads per inch 9
Stay 3 1/2" 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 1/4" 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

The foregoing is a correct description,

Manufacturer

Dates of Survey { During progress of 1923 Jul 2, 3, 4 Aug 6, 28 Sep 3, 10, 19, 20, 27 Oct 1, 5 Are the approved plans of boiler and superheater forwarded herewith J.S.
work in shops - - - 8, 12, 16, 19. (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, and under steam its safety valves adjusted.

Survey Fee ... £ 13 : 6 : 0

When applied for, 20/11/1923

Travelling Expenses (if any) £

When received, Jan 30, 1924 (16-6-0)

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

Committee's Minute GLASGOW 20 NOV 1923

FRI. FEB 8 1924

Assigned

Deferred pro



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