

Rpt. 5a.

REPORT ON BOILERS.

Sld. No. 30504
Spl. No. 16953

Received at London Office 10 SEP 1930

Date of writing Report 22 July 1930 When handed in at Local Office 8-9-30 Port of Hartlepool
No. in Survey held at Hartlepool Date, First Survey 2-6-30 Last Survey 2-9-30
Reg. Book. Sup (Number of Visits 20) Tons { Gross 6749
Net 4045
on the M.V. THORSHAVN

Master Built at Sunderland By whom built Sir J Laing & Sons Ltd Yard No. 710 When built 1930
Engines made at Sunderland By whom made W. Doxford & Sons Ltd Engine No. 178 When made 1930
Boilers made at Hartlepool By whom made Richardsons Westgarth & Co Ltd Boiler No. D209 When made 1930
Nominal Horse Power 96 Owners Mrs. Thor Dahl Port belonging to Sandefjord

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR, DONKEY.

To be checked on return.

Manufacturers of Steel Steel Company of Scotland Ltd (Letter for Record S.)
Total Heating Surface of Boilers 1445 sq. ft. Is forced draught fitted yes Coal or Oil fired oil
No. and Description of Boilers One single ended Working Pressure 150 lbs
Tested by hydraulic pressure to 275 lbs Date of test 21-7-30. No. of Certificate 3788 Can each boiler be worked separately yes
Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 marine type
Area of each set of valves per boiler { per Rule 13.158" Pressure to which they are adjusted 155-175" Are they fitted with easing gear yes
as fitted 14.140"
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 3'-0" Is oil fuel carried in the double bottom under boilers ✓
Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated yes
Largest internal dia. of boilers 11'-4 5/16" Length 11'-6" Shell plates: Material Steel Tensile strength 28/32
Thickness 27/32 Are the shell plates welded or flanged no Description of riveting: circ. seams { end D.R. Lap
inter.
long. seams D.R. D.B.S. Diameter of rivet holes in { circ. seams 13/32 Pitch of rivets { 3 1/4" row. 2 27/32 1 row.
long. seams 13/32
Percentage of strength of circ. end seams { plate 68.2. Percentage of strength of circ. intermediate seam { plate ✓
rivets 49.9.
Percentage of strength of longitudinal joint { plate 81.8 Working pressure of shell by Rules 150 lbs.
combined 90.6
Thickness of butt straps { outer 46/16 No. and Description of Furnaces in each Boiler 3 Morrison's
inner 13/16 Tensile strength 26/30 Smallest outside diameter 31 3/4"
Material Steel Length of plain part { top Thickness of plates { crown 3/8" Description of longitudinal joint welded
bottom
Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 166 lbs.
End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1" Pitch of stays 20" x 14"
How are stays secured Double nuts. Working pressure by Rules 15.4 lbs
Tube plates: Material { front steel Tensile strength { 26/30 Thickness { 13/16 1/4"
back steel Working pressure { front 172 lbs
back 171 lbs
Mean pitch of stay tubes in nests 9 1/8" x 10 1/16" Pitch across wide water spaces 13 1/2"
Girders to combustion chamber tops: Material Steel Tensile strength 26/32 Depth and thickness of girder
at centre 7 1/2" x 1 3/8" Length as per Rule 27 7/8" Distance apart 9 3/4" No. and pitch of stays
in each 3 6 3/4" Working pressure by Rules 158 lbs Combustion chamber plates: Material Steel
Tensile strength 26/30 Thickness: Sides 19/32 Back 23/32 Top 19/32 Bottom 19/32
Pitch of stays to ditto: Sides 9" x 8 1/4" Back 9" x 8 1/2" Top 6 3/4" x 9 3/4" Are stays fitted with nuts or riveted over riveted & nuts
Working pressure by Rules 157 lbs Front plate at bottom: Material Steel Tensile strength 26/30
Thickness 13/16 Lower back plate: Material Steel Tensile strength 26/30 Thickness 3/4"
Pitch of stays at wide water space 8 1/2" x 13 5/8" Are stays fitted with nuts or riveted over nuts
Working Pressure 176 lbs Main stays: Material Steel Tensile strength 28/32
Diameter { At body of stay, 2 5/8" x 2 3/8" No. of threads per inch 6 Area supported by each stay 13 1/2" x 22" x 14" x 16 1/2"
Over threads
Working pressure by Rules 163 x 170 lbs Screw stays: Material Steel Tensile strength 26/30
Diameter { At turned off part, 1 1/2" No. of threads per inch 9 Area supported by each stay 8 1/2" x 9"

Working pressure by Rules 164 lbs Are the stays drilled at the outer ends no Margin stays: Diameter { At turn-off part, 1 5/8 or Over threads 1 5/8
No. of threads per inch 9 Area supported by each stay 11 5/16 x 8 1/2 Working pressure by Rules 157 lbs
Tubes: Material Iron External diameter { Plain 2 1/2 Stay 2 1/2 Thickness { 8 3 2 1 1 2 No. of threads per inch 9
Pitch of tubes 3 5/8 x 3 7/16 Working pressure by Rules 210 lbs Manhole compensation: Size of opening in shell plate 12 x 16 Section of compensating ring 11 15/16 x 7 No. of rivets and diameter of rivet holes 28 1 1/2
Outer row rivet pitch at ends 5 1/16 Depth of flange if manhole flanged ✓ 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 ✓
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 Yes

The foregoing is a correct description,

For Richardsons, Westgarth & Co. Limited Manufacturer.

Dates of Survey { During progress of work in shops -- June 2-5-6-12-18-20-27 July 3-7-9-10-11-14-16-18 Are the approved plans of boiler and superheater forwarded herewith forwarded with duplicate
while building { During erection on board vessel -- 21 Aug 19-20-27 Sep 2 (If not state date of approval.)
Total No. of visits 20

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Sir J Laing & Sons Ltd 16940

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

This boiler has been built under Special Survey.
The materials and workmanship are good and efficient.
The mountings have been examined and tested.
It has been despatched to Sunderland for fitting on board.
This boiler has been satisfactorily fitted in the vessel & the safety valves adjusted under steam. For notation see machinery report.

Survey Fee £ 9 : 12 : 0 When applied for 9-9-1930
Travelling Expenses (if any) £ 0 When received 29-9-1930

R.D. Shilston & R. Macintosh
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute TUE. 25 NOV 1930

Assigned

See old No 30504



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