

REPORT ON BOILERS.

No. 45041

-7 AUG 1925

-7 OCT 1925

Received at London Office

of writing Report Oct 2nd 1925 When handed in at Local Office Oct 3rd 1925 Port of GLASGOW.

in Survey held at Glasgow Date, First Survey 13th Aug 1924 Last Survey Sept 30th 1925

on the S.E. Marine Boiler ARTHUR BENELMANS (Number of Visits 14) Gross Tons 72 Net Tons 40

Built at Bowling By whom built Scott & Sons Yard No. 300 When built 1929

Engines made at Trean By whom made A. & B. G. & Co. Engine No. 96 When made 1920

Boilers made at Glasgow By whom made A. & W. Dalglish Boiler No. 803 When made 1925

Indicated Horse Power 43 Owners Soc. pour L'Amélioration des Ports de Commerce Port belonging to Natural

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Company of Scotland (Letter for Record S)

Heating Surface of Boilers 990 sq ft Is forced draught fitted Yes Coal or Oil fired Oil

Description of Boilers One S.E. Marine Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs Date of test 30-9-25 No. of Certificate 16935 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 34.4 sq ft No. and Description of safety valves to each boiler 2 - 2 1/2 dia

Area of each set of valves per boiler per Rule Pressure to which they are adjusted 180 lb Are they fitted with easing gear Yes

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 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

Largest internal dia. of boilers 11'-0" Length 9' 6" Shell plates: Material S Tensile strength 28-32 tons

Thickness of shell plates 15" Are the shell plates welded or flanged No Description of riveting: circ. seams DR Lap

Longitudinal seams TR DBS Diameter of rivet holes in 1 1/16" Pitch of rivets 3 1/4"

Percentage of strength of circ. end seams plate 64.3, rivets 55.1 Percentage of strength of circ. intermediate seam plate 85, rivets 90.6

Percentage of strength of longitudinal joint plate 85, rivets 90.6, combined 88.13 Working pressure of shell by Rules 183 lbs

Thickness of butt straps outer 2 3/32", inner 2 1/32" No. and Description of Furnaces in each Boiler Two plain

Material S Tensile strength 26-30 tons Smallest outside diameter 3' 4 1/2"

Length of plain part top 5-11 19/32", bottom 5-10 25/32" Thickness of plates top 2 3/32", bottom 3/32" Description of longitudinal joint Weld

Dimensions of stiffening rings on furnace or c.c. bottom 3 1/2 x 3 1/2 x 3/4" Working pressure of furnace by Rules 181

End plates in steam space: Material S Tensile strength 26-30 tons Thickness 15" Pitch of stays 15 x 14 1/2"

How are stays secured Double nut Working pressure by Rules 185 lbs

End plates: Material S Tensile strength 26-30 tons Thickness 3/4"

Lean pitch of stay tubes in nests 10 5/8" Pitch across wide water spaces 13 1/2" Working pressure front 181 lbs, back 186 lbs

Orders to combustion chamber tops: Material S Tensile strength 28-32 tons Depth and thickness of girder 8"

Centre 4 3/4 x 1 1/16" Length as per Rule 2' 4 21/32" Distance apart 8" No. and pitch of stays 2 @ 8 3/4"

Working pressure by Rules 185 Combustion chamber plates: Material S

Tensile strength 26-30 tons Thickness: Sides 5/8" Back 19/32" Top 21/32" Bottom 5/8"

Pitch of stays to ditto: Sides 8 3/4 x 8 1/2" Back 4 1/2 x 8 1/2" Top 8 x 8 3/4" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 182 lbs Front plate at bottom: Material S Tensile strength 26-30 tons

Thickness 13/16" Lower back plate: Material S Tensile strength 26-30 tons Thickness 16"

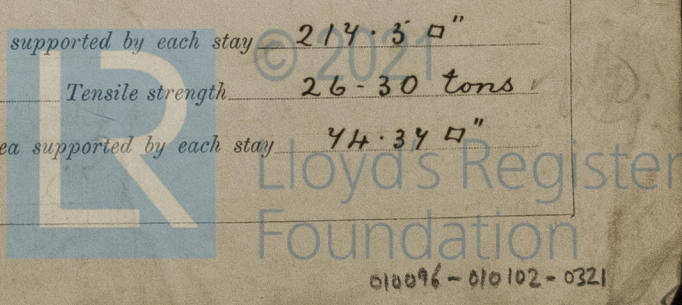
Pitch of stays at wide water space 13' x 8 1/2" Are stays fitted with nuts or riveted over Nuts

Working Pressure 222 lbs Main stays: Material S Tensile strength 28-32 tons

At body of stay, 2 3/8" No. of threads per inch 6 Area supported by each stay 214.5 sq in

Working pressure by Rules 181 Screw stays: Material S Tensile strength 26-30 tons

At turned off part, 1 5/8" No. of threads per inch 9 Area supported by each stay 44.37 sq in



Working pressure by Rules 206 lbs Are the stays drilled at the outer ends No Margin stays: Diameter ^{At turned off part.} 1 3/4"
 No. of threads per inch 9 Area supported by each stay 84.125 sq" Working pressure by Rules 206 lbs
 Tubes: Material L W Iron External diameter ^{Plain} 3 1/4 Thickness ^{Stay} 3 1/4 No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 230 lbs Manhole compensation: Size of opening in
 shell plate 16" x 12" Section of compensating ring 30" x 26" x 15/16 No. of rivets and diameter of rivet holes 32 @ 1 1/8" holes
 Outer row rivet pitch at ends 6 1/2" Depth of flange if manhole flanged - Steam Dome: Material None
 Tensile strength 60000 Thickness of shell 11/16" Description of longitudinal joint
 Diameter of rivet holes 1 1/8" Pitch of rivets 2 1/2" Percentage of strength of joint ^{Plate} 100
 Internal diameter 24" Working pressure by Rules 230 lbs Thickness of crown 1 1/8" No. and diameter of
 stays 4 Inner radius of crown 12" Working pressure by Rules 230 lbs
 How connected to shell Direct Size of doubling plate under dome None Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1 1/8" @ 2 1/2"

Type of Superheater None Manufacturers of ^{Tubes} None
 Number of elements None Material of tubes None Internal diameter and thickness of tubes None
 Material of headers None Tensile strength None Thickness None Can the superheater be shut off and
 the boiler be worked separately Yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
 Area of each safety valve None Are the safety valves fitted with easing gear Yes Working pressure as per
 Rules 230 lbs Pressure to which the safety valves are adjusted 230 lbs Hydraulic test pressure:
 tubes 230 lbs castings 230 lbs and after assembly in place 230 lbs Are drain cocks or valves fitted
 to free the superheater from water where necessary Yes

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,
A. H. Dalziel Manufacturer

Dates of Survey ^{During progress of} 1924 Aug 13-20-24 Sep 14-17-25 Oct 17 Are the approved plans of boiler and superheater forwarded herewith Yes
^{work in shops - -} Nov 6-12-18-24 Dec 4-23 1925 Jan 14
^{while building} ^{During erection on} Feb 2 Sep 30 Total No. of visits 14
^{board vessel - - -}

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been built
under Special Survey in accordance with the approved plan
and Rules of the Society. The workmanship and materials
are of good quality
The boiler is intended for vessel N° 300 building at
Scott & Sons, Bowling.

Survey Fee £ 6 : 12 : 0 When applied for, 192
 Travelling Expenses (if any) £ : : When received, 192

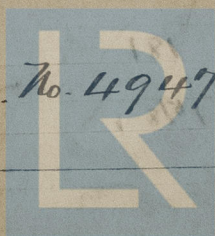
MONTHLY ACCOUNT

David C Barr.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6-OCT 1925

Assigned TRANSMIT TO LONDON

See G.L. Rpt. No. 49473



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