

1925
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REPORT ON BOILERS.

No. 79005

Received at London Office 23 MAR 1925
NEWCASTLE-ON-TYNE.

Writing Report 6th March 1925 When handed in at Local Office 6th March 1925 Port of St. Peter's Newcastle

Survey held at St. Peter's Newcastle Date, First Survey 1st Sept. 1924 Last Survey 29 Jan. 1925

on the Screw Lug, Abeille No 21. (Number of Visits 34.) Gross Tons 250 Net Tons 10

Built at S. Shields By whom built J.P. Remoldson & Sons Card No. 325 When built 1925

Made at S. Shields By whom made J.P. Remoldson & Sons Engine No. 855 When made 1925

Made at St. Peter's Newcastle By whom made R.W. Hawthorn Leslie & Co Boiler No. 8828 When made 1925

Indicated Horse Power Owners Cie de Remorq & de Sauvetage les Abeilles Port belonging to Havre

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville & Sons Ltd (Letter for Record S)

Heating Surface of Boilers 2843 sq ft Is forced draught fitted No Coal or Oil fired Coal

Kind and Description of Boilers One Single Ended Multitubular Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs Date of test 26/11/24 No. of Certificate 9878 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 82 sq ft No. and Description of safety valves to each boiler Two, direct spring.

Weight of each set of valves per boiler 18.1 lb Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Least distance between boilers or uptakes and bunkers or woodwork 24" Is oil fuel carried in the double bottom under boilers No

Least distance between shell of boiler and tank top plating Open floors. Is the bottom of the boiler insulated No

Least internal dia. of boilers 16'-3" Length 112'-6" Shell plates: Material Steel Tensile strength 28/32 tons

Thickness 1 21/64" Are the shell plates welded or flanged No Description of riveting: circ. seams 2 R Lap

Seams Double straps, 5 rivets Diameter of rivet holes in circ. seams 1 3/8" Pitch of rivets 3.95"

Percentage of strength of circ. end seams plate 65.6 rivets 45.8 Percentage of strength of circ. intermediate seam plate None rivets None

Percentage of strength of longitudinal joint plate 85.5 rivets 91.6 combined 89.3 Working pressure of shell by Rules 182 lbs per sq in.

Thickness of butt straps outer 1 1/64" inner 1 9/64" No. and Description of Furnaces in each Boiler Four, Dightons.

Material Steel Tensile strength 26/30 tons Smallest outside diameter 41 1/16"

Thickness of plain part top bottom Thickness of plates crown 17/32" Description of longitudinal joint Welded.

Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules 187 lbs per sq in.

Plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 1 3/8" Pitch of stays 22 1/2" x 21"

Are stays secured Double Nuts & washers Working pressure by Rules 187 lbs

Plates: Material front Steel back Steel Tensile strength 26/30 tons Thickness front 31/32" back 29/32"

Pitch of stay tubes in nests 10 1/2" Pitch across wide water spaces 14 1/4" Working pressure front 200 lbs back 209 "

Plates to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder

Centre 10" x 19 1/16" Length as per Rule 35 1/2" Distance apart 10" No. and pitch of stays

Chamber Three, 9 1/8" Working pressure by Rules 198 lbs Combustion chamber plates: Material Steel

Tensile strength 26/30 tons Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 7/8"

Are stays fitted with nuts or riveted over Nuts.

Working pressure by Rules 180 lbs per sq in. Front plate at bottom: Material Steel Tensile strength 26/30 tons

Thickness 31/32" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 29/32 tons

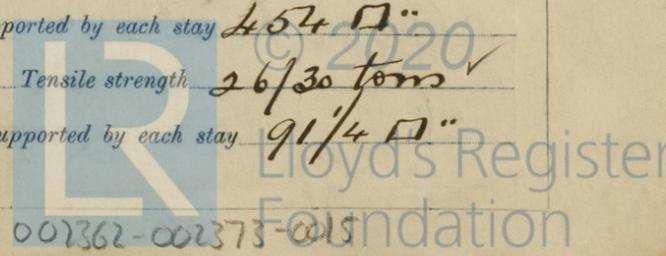
Pitch of stays at wide water space 15" Are stays fitted with nuts or riveted over Nuts

Working Pressure 209 lbs per sq in. Main stays: Material Steel Tensile strength 28/32 tons

At body of stay, No. of threads per inch 6 Area supported by each stay 4.57 sq in.

Over threads 3 3/8" Working pressure by Rules 182 lbs Screw stays: Material Steel Tensile strength 26/30 tons

At turned off part, No. of threads per inch 9 Area supported by each stay 9 1/4 sq in.



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Working pressure by Rules 198 lb Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part. 1 7/8" or Over threads 1 7/8"

No. of threads per inch 9 Area supported by each stay 112.6 sq" Working pressure by Rules 188 lb per sq"

Tubes: Material Iron External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 3/8" & 5/16" No. of threads per inch 9

Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 198 lb Manhole compensation: Size of opening in shell plate 21" x 17" Section of compensating ring 4 1/2" x 3 7/8" x 1 3/8" No. of rivets and diameter of rivet holes 16, 1 7/16"

Outer row rivet pitch at ends 10" 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 ✓ 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 yes



The foregoing is a correct description, Manufacturer.

1924
 Dates of Survey { During progress of work in shops - - } Sep. 1, 10, 16, 23, 24, 29, 30, Oct. 14, 17, 21, 28 Are the approved plans of boiler ✓ forwarded herewith yes.
 { while building } { During erection on board vessel - - - } 31, Nov. 5, 8, 12, 18, 21, 25, 26, 28, Dec. 2, 12, 15
16, 17, 19, 22, 1925 Jan. 7, 9, 15, 20, 21, 23, 29
 Total No. of visits 34

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, the materials and workmanship being of good quality, The boiler was tested by hydraulic pressure to 320 lb per sq" and was found tight and sound at that pressure
The boiler was placed on board at St Peters and the vessel towed to S Shields for completion.
For recommendations, please see report on machinery.

Survey Fee £ 19: 0 : 0
 Travelling Expenses (if any) £ ✓

When applied for, 21 MAR 1925
 When received, 21 MAR 1925

George Murdoch
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 24 MAR 1925

Assigned See other rpt same no.

