

REPORT ON BOILERS.

No. 12934

Received at London Office

1 - JUN 1927

Date of writing Report 31. 5. 1924 When handed in at Local Office 31. 5. 1924 Port of Middlesbrough

No. in Surrey held at Stoeten Date, First Survey Apr 22nd 24 Last Survey 24. 5. 1924

on the Spencer Bonecourt Waste Heat boiler for m.v. "DORDRECHT" (Number of Visits 8)

Master Maatschappij S. Barendrecht Built at Amsterdam By whom built La Gennetson Yard No. 577 When built 1928

Engines made at Rotterdam By whom made Mr. Tyenwood Engine No. 542 When made 1928

Boilers made at Stoeten By whom made Riley Bros. Boiler No. 5420 When made 1924

Nominal Horse Power 1110 Owners Maatschappij S. Barendrecht Port belonging to Rotterdam

Waste Heat.

MULTITUBULAR BOILERS - ~~MAIN, AUXILIARY, OR DONKEY.~~

Manufacturers of Steel Steel Co. of Scotland. (Letter for Record S.)

Total Heating Surface of Boilers 1110 sq. ft. Is forced draught fitted Yes Coal or Oil fired Gas

No. and Description of Boilers One Spencer Bonecourt Waste Heat Working Pressure 145 lbs.

Tested by hydraulic pressure to 268 lbs. Date of test 24. 5. 24 No. of Certificate 6543 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler None No. and Description of safety valves to each boiler Pair Spring loaded

Area of each set of valves per boiler 5.94 sq. ft. Pressure to which they are adjusted 142 lbs. Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No main.

Smallest distance between boilers or uptakes and bunkers or woodwork None Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating None Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 5'-0" Length 13'-6" Shell plates: Material Steel Tensile strength 28/32

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

Long. seams D.R.D.B.S. Diameter of rivet holes in 13/16" Pitch of rivets 3"

Percentage of strength of circ. end seams 43.8 Percentage of strength of circ. intermediate seam 61.9

Percentage of strength of longitudinal joint 106.4 Working pressure of shell by Rules 143

Thickness of butt straps 1/2" No. and Description of Furnaces in each Boiler None

Material Steel Tensile strength 26/30 Smallest outside diameter None

Length of plain part None Thickness of plates 3/16" Description of longitudinal joint None

Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules None

End plates in steam space: Material Steel Tensile strength 26/30 Thickness 3/16" Pitch of stays None

How are stays secured None Working pressure by Rules None

Tube plates: Material Steel Tensile strength 26/30 Thickness 3/16"

Mean pitch of stay tubes in nests 8 1/4" Pitch across wide water spaces None Working pressure 146

Girders to combustion chamber tops: Material Steel Tensile strength None Depth and thickness of girder None

at centre None Length as per Rule None Distance apart None No. and pitch of stays None

in each None Working pressure by Rules None Combustion chamber plates: Material None

Tensile strength None Thickness: Sides None Back None Top None Bottom None

Pitch of stays to ditto: Sides None Back None Top None Are stays fitted with nuts or riveted over None

Working pressure by Rules None Front plate at bottom: Material None Tensile strength None

Thickness None Lower back plate: Material None Tensile strength None Thickness None

Pitch of stays at wide water space None Are stays fitted with nuts or riveted over None

Working Pressure None Main stays: Material None Tensile strength None

Diameter None No. of threads per inch None Area supported by each stay None

Working pressure by Rules None Screw stays: Material None Tensile strength None

Diameter None No. of threads per inch None Area supported by each stay None



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Working pressure by Rules Are the stays drilled at the outer ends Margin stays: Diameter At turned off part, Over threads

No. of threads per inch Area supported by each stay Working pressure by Rules

Tubes: Material *steel* External diameter $\left\{ \begin{array}{l} \text{Plain } 1\frac{1}{2} \text{ to } 1\frac{3}{8} \\ \text{Stay } 1\frac{3}{16} \end{array} \right.$ Thickness $\left\{ \begin{array}{l} 10 \text{ W.G.} \\ \frac{1}{4} \text{"} \end{array} \right.$ No. of threads per inch *9*

Pitch of tubes $2\frac{1}{2} \times 2\frac{1}{2}$ Working pressure by Rules *p. 215 s. 142* Manhole compensation: Size of opening in shell plate 18×13 Section of compensating ring $6 \times \frac{11}{16}$ No. of rivets and diameter of rivet holes $48 - \frac{13}{16}$

Outer row rivet pitch at ends $3\frac{1}{4}$ Depth of flange if manhole flanged Steam Dome: Material

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint $\left\{ \begin{array}{l} \text{Plate} \\ \text{Rivets} \end{array} \right.$

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays

How connected to shell Inner radius of crown Working pressure by Rules

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 $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel castings} \end{array} \right.$

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**

RILEY BROS. (BOILERMAKERS) LIMITED.
The foregoing is a correct description,
J. H. Shields SECRETARY, Manufacturer.

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of work in shops} \\ \text{while building} \end{array} \right.$ $\left\{ \begin{array}{l} \text{During erection on board vessel} \end{array} \right.$

1927
Apr 22-29. May 4-10-12-20-26-27 Are the approved plans of boiler and superheater forwarded herewith **Yes**
(If not state date of approval.)

Total No. of visits *8*

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

The materials and workmanship are good.
This boiler has been built under special survey in accordance with the Rules and approved plan.

Survey Fee £ *4-8-0* When applied for, **MONTHLY A/c.**

Travelling Expenses (if any) £ : : : When received, 192

A. J. McA...
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUES. 21 FEB 1928**

Assigned *See Prot. J. Expt No 17193.*

