

Incl. Rpt. No. 5791

REPORT ON BOILERS.

Rpt. 5a.
Rpt. 5a

Received at London Office **4 JUN 1943**

Date of writing Report Jan. 26th 1943 When handed in at London Office 19 Port of MONTREAL, QUE.

No. in Reg. Book. Survey held at MONTREAL, QUE. Date, First Survey Nov. 3rd Last Survey Dec. 17th 1942

St. John: " " Dec. 30 (Number of Visits 20) Total 27 Gross 2877 Net 1655

on the S. S. ~~DOMESUSSEX~~ "DARTMOUTH PARK" Tons

Built at SAINT JOHN, N.B. By whom built St. John Dry Dock & Shipbuilding Co. Ltd. Yard No. 15 When built 1943

Engines made at LACHINE, P. Q. By whom made DOMINION BRIDGE CO. LIMITED Engine No. 2005 When made 1942

Boilers made at LACHINE, P. Q. By whom made DOMINION BRIDGE CO. LIMITED Boiler No. B.1042 P5 When made 1942

Nominal Horse Power _____ Owners H.M. the King, in right of Canada, represented by the Minister of Munitions and Supply, Ottawa Port belonging to Montreal

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

Manufacturers of Steel Bethlehem Steel Co., Steel Co. of Canada, Trenton Steel Co., Dom. Foundries & Steel (Letter for Record S)

Total Heating Surface of Boilers 2 Boilers 3854 sq. ft. Is forced draught fitted Yes Coal or Oil fired Coal

No. and Description of Boilers 2 Multitubular Scotch Boilers Working Pressure 200 lbs/sq. in.

Tested by hydraulic pressure to 350 Lbs./sq. in. Date of test 14.12.42 No. of Certificate 4581 Can each boiler be worked separately Yes

Area of Firegrate in each boiler 43.25 sq. ft. No. and Description of Safety valves to each boiler One twin Cockburn Improved High Lift 2 1/2" each

Area of each set of valves per boiler { per Rule 6.72 sq. in. as fitted 7.952 sq. in. Pressure to which they are adjusted 200 lbs/sq. in. Are they fitted with easing gear Yes

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 2 ft. Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 2 ft. Is the bottom of the boiler insulated Yes

Largest internal diameter of boilers 13' - 6" Length 11' - 6" Shell plates: Material 0 H Steel Tensile strength 29-33 tons

Thickness 1-9/32" Are the shell plates ~~welded~~ or flanged No Description of riveting: circ. seams { end Welded (Union Melt) inter. _____

Long. seams Welded (Union Melt) Diameter of rivet holes in { circ. seams _____ long. seams _____ Pitch of rivets { _____

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

Percentage of strength of longitudinal joint { plate _____ rivets _____ combined _____

Thickness of butt straps { outer None inner None No. and Description of Furnaces in each Boiler 3 Morrison corrugated

Material 0 H Steel Tensile strength 26-30 tons Smallest outside diameter 3' - 5-5/8"

Length of plain part { top _____ bottom _____ Thickness of plates { crown 9/16 bottom _____ Description of longitudinal joint lap weld -

Dimensions of stiffening rings on furnace or c.c. bottom _____

End plates in steam space: Material 0 H Steel Tensile strength 26-30 tons Thickness 1-3/16" Pitch of stays 17 3/4" x 18 1/4"

How are stays secured Inside and outside nuts

Tube plates: Material { front 0 H Steel back 0 H Steel Tensile strength { 26-30 tons Thickness { 29/32" 13/16"

Mean pitch of stay tubes in nests 10-3/8" Pitch across wide water spaces 14" x 8 1/2"

Girders to combustion chamber tops: Material 0 H Steel Tensile strength 28-32 tons Depth and Thickness of girder _____

at centre 7 3/4" x 7/8" Length as per Rule 2' - 9-15/32" Distance apart 8" centre to centre No. and pitch of stays _____

in each 2 - 10 3/4" Combustion chamber plates: Material 0 H Steel

Tensile strength 26-30 tons Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 23/32"

Pitch of stays to ditto: Sides 11" x 7 3/4" Back 8-3/8" x 10 1/2" Top 10 3/4" x 8" Are stays fitted with nuts or riveted over Welded washers & welded over

Front plate at bottom: Material 0 H Steel Tensile strength 26-30 tons Thickness 29/32"

Thickness 29/32" Lower back plate: Material 0 H Steel Tensile strength 26-30 tons Thickness 29/32"

Pitch of stays at wide water space 14-3/8" x 10 1/2" Are stays fitted with nuts or riveted over Welded washers & welded over

Main stays: Material 0 H Steel Tensile strength 28-32 tons

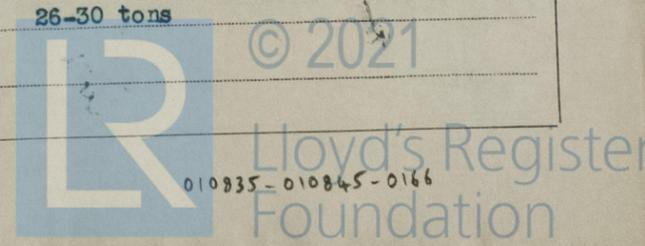
Diameter { At body of stay 3 1/4" and 2 1/2" No. of threads per inch 6 or _____ Over threads _____ Tensile strength 26-30 tons

Screw stays: Material 0 H Steel Tensile strength _____

Diameter { At turned off part 2" and 1 3/4" No. of threads per inch 9 or _____ Over threads _____

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

[2M-7-41—Copyrighted Ink.] (Printed in U. S. A.)



5A 5791

Are the stays drilled at the outer ends No Margin stays: Diameter $\left\{ \begin{array}{l} \text{At turned off part} \\ \text{or} \\ \text{Over threads} \end{array} \right. 2"$

No. of threads per inch 9

Tubes: Material 0 H Steel External diameter $\left\{ \begin{array}{l} \text{Plain} \\ \text{Stay} \end{array} \right. \begin{array}{l} 3" \\ 3" \end{array}$ Thickness $\left\{ \begin{array}{l} \text{\#8 L S G} \\ 5/16" \text{ \& } 1/4" \end{array} \right.$ No. of threads per inch 9

Pitch of tubes 4-1/8" x 4-3/16" Manhole compensation: Size of opening in shell plate - Section of compensating ring - No. of rivets and diameter of rivet holes -

Outer row rivet pitch at ends - 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 $\left\{ \begin{array}{l} \text{Plata} \\ \text{Rivets} \end{array} \right. \begin{array}{l} - \\ - \end{array}$

Internal diameter - Thickness of crown - No. and diameter of stays - Inner radius of crown -

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 Smoke Tube Manufacturers of $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel forgings} \\ \text{Steel castings} \end{array} \right. \begin{array}{l} \text{National Tube Co., Ellwood City, Pa.} \\ - \\ - \end{array}$

Number of elements 48 Material of tubes 0 H Seamless Steel Internal diameter and thickness of tubes .69 .095 13 B W G

Material of headers 0 H Seamless Tube Tensile strength - Thickness 1-1/8" 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 Yes

Area of each safety valve 1.767 sq. ins. Are the safety valves fitted with easing gear Yes

Pressure to which the safety valves are adjusted 210 lbs. per sq. inch Hydraulic test pressure: tubes 2500 lbs. forgings and castings 550 lbs. and after assembly in place - Are drain cocks or valves fitted to free the superheater from water where necessary Yes

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
DOMINION BRIDGE CO., LIMITED Manufacturer.
for Approval

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of work in shops} \\ \text{while building} \end{array} \right. \begin{array}{l} \text{Nov. 3, 7, 9, 12, 16, 18, 19, 21, 24, 26, 30} \\ \text{Dec. 1, 2, 3, 5, 7, 9, 14, 16, 17} \end{array}$ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

1942: Dec. 30; 1943: Jan. 7, 9, 29; Feb. 23, 25; Mar. 1, 6, 12, 24, Total No. of visits 47

30; Apr. 1, 3, 4, 6, 7, 8, 9, 12, 14, 15, 16, 17, 22, 26, 29, 30.

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "ROCKWOOD PARK" - Rpt. No. 5740 Montreal

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These BOILERS have been constructed under Special Survey and in accordance with the Approved Plans. The materials and workmanship are good. The shell longitudinal and circumferential end seams are welded by the Union Melt Process.

The BOILERS were tested hydrostatically at 350 lbs. per square inch pressure and found tight.

These boilers were installed in this vessel under special survey, and in accordance with the Rules and approved plans. The materials and workmanship are of good quality. Both Port and Starboard boilers were emptied and manhole doors removed for an internal examination after the official dock steaming trial and were both found in good condition. The combustion chamber fire boxes were examined at this time and found satisfactory.

After the official Sea Trial, the Port boiler was emptied and manhole doors removed for an internal examination and found in good condition. The combustion chamber fire boxes were also examined at this time and found satisfactory.

Survey Fee \$200.00 When applied for, Feb. 27 1943 Applied for by Saint John, N.B. office - May 12, 1943

Travelling Expenses (if any) £ - When received, 19

Included with Eng. Rpt.

W W. J. P. Smith
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 18 JUN 1943

Assigned See minute on E.R. Rpt.

