

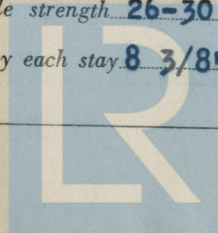
## REPORT ON BOILERS.

Inal. Rpt.

No. 6311

15 NOV 1944

Received at London Office

Date of writing Report June 14, 1944 When handed in at Local Office June 1, 1944 Port of Montreal, Que.No. in Reg. Book. Survey held at Montreal, Que. Date, First Survey April 20, 1944 Last Survey May 26, 1944on the S.S. "LISCOMB PARK"(Number of Visits 13)Tons { Gross  
NetBuilt at Pictou, N. S. By whom built Foundation Maritime Limited Yard No. 17 When built 1944Engines made at THREE RIVERS, Que. By whom made Canada Iron Foundries Ltd. Engine No. 2025 When made 1944Boilers made at LACHINE, QUE. By whom made DOMINION BRIDGE COMPANY LIMITED Boiler No. B1340 When made 1944Nominal Horse Power 269 Owners CANADIAN GOVERNMENT Port belonging to MONTREALMULTITUBULAR BOILERS—MAIN, ~~XXXXXXXXXXXXXXXXXXXX~~Manufacturers of Steel Bethlehem, Steel Co. of Canada, Lukens, etc.(Letter for Record S ✓)Total Heating Surface of Boilers 1927 sq.ft. Is forced draught fitted Yes Coal or Oil fired CoalNo. and Description of Boilers 1 Single Ended Multitubular Working Pressure 200 lbs./sq.in.Tested by hydraulic pressure to 350 lbs./sq.in. Date of test 26.5.44 No. of Certificate 1947 Can each boiler be worked separately YesArea of Firegrate in each Boiler 43.25 sq.ft. and Description of safety valves to each boiler One Twin Cockburn Improved High Lift 2 1/2" dia. eachArea of each set of valves per boiler { per Rule 6.72 sq.in. 5.6 for I.H.L. Pressure to which they are adjusted 200 lbs. Are they fitted with easing gear Yes  
as fitted 7.95 sq.in.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~~ 2' 3" Is oil fuel carried in the double bottom under boilers NOSmallest distance between shell of boiler and tank top plating 2' 0" Is the bottom of the boiler insulated YESLargest internal dia. of boilers 13' - 6" Length 11' - 6" Shell plates: Material O.H. Steel Tensile strength 29-33 tonsThickness 1 9/32" Are the shell plates welded or flanged Welded Description of riveting: circ. seams { end  
inter Weldedlong. seams Welded 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 --- Working pressure of shell by Rules 204.3 lbs./sq.in.Thickness of butt straps { outer None  
inner None No. and Description of Furnaces in each Boiler 3 Morrison CorrugatedMaterial O.H. Steel Tensile strength 26-30 tons Smallest outside diameter 38 1/2"Length of plain part { top  
bottom --- Thickness of plates { crown 9/16"  
bottom --- Description of longitudinal joint Lap WeldDimensions of stiffening rings on furnace or c.c. bottom --- Working pressure of furnace by Rules 212 lbs./sq.in.End plates in steam space: Material O.H. Steel Tensile strength 26-30 tons Thickness 1 3/16" Pitch of stays 18 1/2" x 17 1/2"How are stays secured Inside and Outside Nuts Working pressure by Rules 202.4 lbs./sq.in.Tube plates: Material { front O.H. Steel  
back O.H. Steel Tensile strength { 26-30 tons  
26-30 tons Thickness { 29/32"  
13/16"Mean pitch of stay tubes in nests 8 3/8" x 10 5/16" Pitch across wide water spaces 14" Working Pressure { front 245 lbs./sq.in.  
back 223 lbs./sq.in.Girders to combustion chamber tops: Material O.H. Steel Tensile strength 28-32 tons Depth and thickness of girderat centre 2 @ 7 1/2" x 7/8" Length as per Rule 33 15/32" Distance apart 8" No. and pitch of staysin each 2 @ 10 1/2" x 8" Working pressure by Rules 206.2 lbs./sq.in. Combustion chamber plates: Material O.H. SteelTensile 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 1/2" Back 8 3/8" x 10 1/2" Top 10 3/8" x 8" Are stays fitted with nuts or riveted over Welded Washers & Welded OverWorking pressure by Rules 202 lbs./sq.in. Front plate at bottom: Material O.H. Steel Tensile strength 26-30 tonsThickness 29/32" Lower back plate: Material O.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 OverWorking pressure 214 lbs./sq.in. Main stays: Material O.H. Steel Tensile strength 28-32 tonsDiameter { At body of stay 3"  
or  
Over threads --- No. of threads per inch 6 Area supported by each stay 18 1/2" x 17 1/2" = 324 sq.in.Working pressure by Rules 207 lbs./sq.in. Screw stays: Material O.H. Steel Tensile strength 26-30 tonsDiameter { At turned off part,  
or  
Over threads 2", 1 1/2" No. of threads per inch 9 Area supported by each stay 8 3/8" x 10 1/2" = 87.5/sq.in.Lloyd's Register  
Foundation

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Working pressure by Rules. 207 lbs./sq. in. the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 2"  
No. of threads per inch 9 Area supported by each stay 11 3/8" x 10 1/2" = 119.5 sq. in. Working pressure by Rules 207 lbs./sq. in.  
Tubes: Material Steel External diameter { Plain 3 Thickness { 8 LSG No. of threads per inch 9  
Pitch of tubes 4 1/8" x 4 3/16" Working pressure by Rules 250 lbs./sq. in. 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 { Plate -  
Internal diameter - Working pressure by Rules - Thickness of crown - Rivets -  
stays - Inner radius of crown - Working pressure by Rules - No. and diameter of  
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 { Tubes National Tube Co.  
Steel forgings Penn. Forge Corporation, Tacony, Pa.  
Steel castings -  
Number of elements 48 Material of tubes O.H. Seamless Internal diameter and thickness of tubes .69 & .095  
Material of headers O.H. Forged Tensile strength 28-33 tons 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. (1 1/2" dia.) Are the safety valves fitted with easing gear Yes Working pressure as per  
Rules 200 Pressure to which the safety valves are adjusted 205 lbs. Hydraulic test pressure:  
tubes 2500 lbs./sq. in. forgings 550 lbs./sq. in. and after assembly in place Under working conditions 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:  
*per H. H. Hall*

Dates of Survey { During progress of work in shops April 20, 21, 25, 26 May 1, 4, 8,  
while building { During erection on board vessel 12, 16, 18; 22, 24, 26. Aug. 19th. Sept. 16, 21 & 22  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
Total No. of visits 17

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

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This BOILER has been constructed under Special Survey and in accordance with Approved Plans.  
The shell longitudinal and circumferential seams are welded by the Union Melt Process and have been tested and X-rayed in accordance with the Rules for Class 1 Pressure Vessels.  
The longitudinal seams of the front and back end plates are welded by the Union Melt Process.  
The BOILER was tested hydrostatically at 350 lbs. per sq. in. pressure and found tight.

Survey Fee 100.00 } When applied for 25th Sept. 1944  
Travelling Expenses (if any) - } When received 19

*Jas. H. Nairn*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FBI 24 NOV 1944

Assigned sa minute on 24th Nov.