

REPORT ON BOILERS.

21 JUL 1944

Received at London Office.

Date of writing Report **April 4, 1944** When handed in at Local Office **March 22, 1944** Port of **Montreal, Que.**

No. in Reg. Book. Survey held at **Montreal, Que.** Date, First Survey **Jan. 12, 1944** Last Survey **Feb. 24, 1944**
(Number of Visits **11**)

on the **S/S "CONFEDERATION PARK"** Tons { Gross _____ Net _____

Built at **Pictou, N.S.** By whom built **Foundation Maritime Limited** Yard No. **13** When built **1944**

Engines made at _____ By whom made _____ Engine No. _____ When made _____

Boilers made at **LACHINE, QUE.** By whom made **DOMINION BRIDGE COMPANY LIMITED** Boiler No. **B.1340 P. 2** When made **1944**

Nominal Horse Power _____ Owners _____ Port belonging to _____

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

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 **Coal**

No. 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 **24.2.44** No. of Certificate **1936** Can each boiler be worked separately **Yes**

Area 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. each**

Area of each set of valves per boiler { per Rule **6.72 sq.in.** Pressure to which they are adjusted _____ 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 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 **13' - 6"** Length **11' - 6"** Shell plates: Material **O.H. Steel** Tensile strength **29-33 tons**

Thickness **1 9/32"** Are the shell plates welded or flanged **Welded** Description of riveting: circ. seams { end _____ inter **Welded**

long. 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 Corrugated**

Material **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"** Description of longitudinal joint **Lap Weld**

Dimensions 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** Tensile strength { **26-30 tons** Thickness { **29/32"**
back **O.H. Steel** **26-30 tons** **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 girder _____

at centre **2 @ 7 1/4" x 7/8"** Length as per Rule **33 15/32"** Distance apart **8"** No. and pitch of stays _____

in each **2 @ 10 5/8" x 8"** Working pressure by Rules **206.2 lbs./sq.in.** Combustion chamber plates: Material **O.H. Steel**

Tensile strength **26-30 tons** Thickness: Sides **23/32"** Back **23/32"** Top **23/32"** Bottom **23/32"** **Welded washers & Welded over**

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

Working pressure by Rules **202 lbs./sq.in.** Front plate at bottom: Material **O.H. Steel** Tensile strength **26-30 tons**

Thickness **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 over**

Working pressure **214 lbs./sq.in.** Main stays: Material **O.H. Steel** Tensile strength **28-32 tons**

Diameter { At body of stay **3"** No. of threads per inch **6** Area supported by each stay **18 1/2" x 17 1/2" = 324 sq.in.**
or Over threads _____

Working pressure by Rules **207 lbs./sq.in.** Screw stays: Material **O.H. Steel** Tensile strength **26-30 tons**

Diameter { At turned off part, _____ No. of threads per inch **9** Area supported by each stay **8 3/8" x 10 1/2" = 87.5/sq.in.**
or Over threads **2", 1 1/2"**



Working pressure by Rules 207 lbs./sq. in. the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 2" or Over threads -

No. of threads per inch 9 Area supported by each stay 11 3/8" x 10 1/2" = 119.5 Working pressure by Rules 207 lbs./sq. in.

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

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 - Rivets -

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 Smoke Tube Manufacturers of { Tubes National Tube Co. Steel forgings - 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. Seamless Tube Tensile strength - Thickness 1 1/8" 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 - forgings and 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 22 inclusive for boilers been complied with -

For particulars see Hpc letter 28.8.44 on Beresford Park.

The foregoing is a correct description,
DOMINION BRIDGE CO. LIMITED Manufacturer.
per J.H. Hall

Dates of Survey while building { During progress of work in shops -- } Jan. 12, 18, 24, 26 Feb. 1,
4, 7, 10, 16, 22, 24 1944. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

{ During erection on board vessel -- } - Total No. of visits -

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 square inch pressure and found tight.

Survey Fee 100 00 : } When applied for 26th May 1944
Travelling Expenses (if any) 18 50 : } When received -

Weyburn
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 1 AUG 1944

Assigned see minute on 26.8.44

