

Rpt. 5a.
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REPORT ON BOILERS.

knab. Rpt.
No. 6156

21 JUL 1944

Received at London Office

Date of writing Report April 5, 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 Feb. 1, 1944 Last Survey March 8, 1944

(Number of Visits 12) Tons { Gross _____ Net _____

on the S/S "CONFEDERATION PARK"

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. B1340 When made 1944
S. 2

Nominal Horse Power _____ Owners _____ Port belonging to _____

MULTITUBULAR BOILERS—MAIN, ~~XXXXXXXXXXXXXXXXXX~~

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 8.3.44 No. of Certificate 1937 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

Area of each set of valves per boiler { per Rule 6.72 sq.in. 5.6 for 1.H.C. on shell 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 _____ combined _____ 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" 3'-5 1/8"

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 back O.H. Steel Tensile strength { 26-30 tons Thickness { 29/32" 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 1/2" x 7/8" Length as per Rule 33 15/32" Distance apart 8" No. and pitch of stays

in each 2 @ 10 3/8" 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"

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 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"

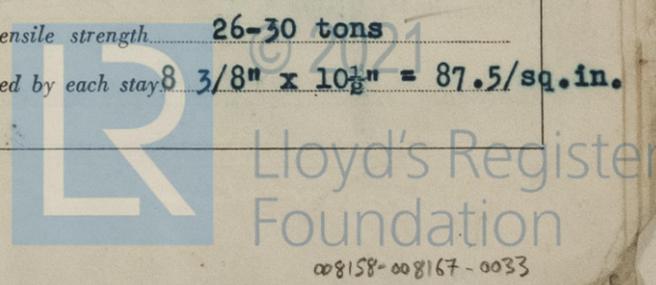
Pitch of stays at wide water space 14 3/8" x 10 1/2" Are stays fitted with nuts or riveted over Welded Washers & Welded over

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 3/4"



Working pressure by Rules **207 lbs./sq. in.** Are the stays drilled at the outer ends **No** Margin stays: Diameter **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** Stay **3** Thickness **5/16" & 1/4"** 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
 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 **Smoke Tube** Manufacturers of Tubes **National Tube Co.**
 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 H.P. letter 28.8.44 on 'Beresford Park'
 The foregoing is a correct description,
DOMINION BRIDGE CO. LIMITED Manufacturer
per M. Hall
 Dates of Survey { During progress of work in shops - - } **Feb. 1, 4, 7, 10, 16, 22, 24, 29**
 { During erection on board vessel - - } **March 1, 3, 7, 8, 1944** Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 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. 5**

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) : : } When received **19**

M. Hall
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned **see minute on J.E. Rpt.**