

# REPORT ON BOILERS.

20 SEP 1945

Received at London Office

15th. August 45  
24th March 1945

14th. August 1945  
10th Feb. 1945

Port of MONTREAL, Que. & QUEBEC, Que.

When handed in at Local Office

1st. February 45 9th. August 1945  
13th Nov. 1944. Last Survey 10th January 1945

No. in Survey held at MONTREAL & LAUZON

Date, First Survey (Number of Visits) 17 & Continuous at-

Tons { Gross 2963.40  
Net 1635.10

-- on the S.S. "CARTIER PARK"

Built at Lauzon, Levis, By whom built Geo. T. Davie & Sons Limited

Engines made at THREE RIVERS

By whom made Canada Iron Foundries Ltd. Engine No. 2037 When made 1945

Boilers made at LACHINE, P.Q.

By whom made DOMINION BRIDGE CO. LIMITED Boiler No. B 1509- P 1 When made 1945

Nominal Horse Power 268.81

Owners CANADIAN GOVERNMENT  
(Mgrs. PARK S.S.CO.LTD.)

Port belonging to Montreal.

## 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. each kl. 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 10/1/45 No. of Certificate 6774 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" dia. each.

Area of each set of valves per boiler { per Rule 6.72 sq. in. for 1 H.L. with 8 ft. Pressure to which they are adjusted 200 lbs. 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 and bunkers 2'-0" ✓ Is oil fuel carried in the double bottom under boilers. NO

Smallest distance between shell of boiler and tank top plating 2'-0" ✓ Is the bottom of the boiler insulated Yes

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 welded

long. seams welded Diameter of rivet holes in { circ. seams - Pitch of rivets { -

Percentage of strength of circ. end seams { plate - Percentage of strength of circ. intermediate seam { plate -

Percentage of strength of longitudinal joint { rivets - Working pressure of shell by Rules 204.3 lbs. sq. in.

Thickness of butt straps { outer 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 tons

Length of plain part { top - 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" ✓

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.

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 1/2" 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

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 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.

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

Diameter { At turned off part, 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.



Working pressure by Rules 207 lbs./sq. in. Are 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"x10 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  
Stay 3 5/16" & 1/2"

Pitch of tubes 4 1/8"x 4 3/16" Working pressure by Rules 250 lbs./sq. in. Manhole compensation: Size of opening - No. in Reg. Book -

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 - 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 Company,  
Steel forgings Penn. Forge Corp. 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 1.76 Sq. Ins. Are the safety valves fitted with easing gear No Working pressure as per Rules - Pressure to which the safety valves are adjusted 200 Lbs. sq. ins. Hydraulic test pressure -

tubes 2500 lbs./sq. in. forgings 550 lbs./sq. in. and after assembly in place 400 Lbs. sq. ins. 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 A.H. Hall

Dates of Survey while building { During progress of work in shops -- } Nov. 13, 14, 16, 23, and 28th  
Dec. 1, 4, 5, 7, 12, 15, 19, 26 & 28th  
Jan. 4, 8 & 10th

{ During erection on board vessel -- } 1st FEBRUARY to 9th AUGUST 1945

are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) -

Total No. of visits CONTINUOUS ATTENDANCE

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. 5740

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.

This BOILER has been satisfactorily fitted aboard this Vessel and examined under Steam. The Safety Valves have been adjusted under steam, tested for accumulation and thickness of washers noted.

This Vessel is eligible in my opinion for record of L.M.C. 8,45.

Survey Fee 162.50

Travelling Expenses (if any) Included

When applied for 6th Sept. 1945

When received 19

S. J. Galt W. J. Galt  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FM. 28 SEP 1945Assigned Su F.E. machy. sph.

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