

REPORT ON BOILERS.

mal Rpt.
No. 5862

1 JUL 1943

Date of writing Report **24th. May 43** When handed in at London Office **27th. May, 1943** Port of **MONTREAL, QUE.**

No. in Reg. Book. Survey held at **MONTREAL, QUE.** Date, First Survey **September 22/42** Last Survey **May 16th. 43**
October 19th

on the **Single Screw Steamer "RIVERVIEW PARK"** (Number of Visits **25 & 30**) Tons { Gross **7130**
Net **5243**

Built at **LAUZON, LEVIS, P.Q.** By whom built **DAVIE SHIPBUILDING & REPAIRING COMPANY LTD.** Yard No. **543** When built **1942**

Engines made at **Lachine, P.Q.** By whom made **Dominion Engineering Works Limited.** Engine No. **81** When made **1943**

Boilers made at **MONTREAL, QUE.** By whom made **DOMINION BRIDGE COMPANY LTD.** Boiler No. **B.971** When made **1942**

Nominal Horse Power **509** Owners **Park Steamship Co. Limited.** Port belonging to **Montreal**

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel **Bethlehem Steel, Steel Co. of Canada, Dominion Foundry & Steel** (Letter for Record **S**)

Total Heating Surface of Boilers **2380 square feet** $\times 3 = 7140$ Is forced draught fitted **Yes** Coal or Oil fired **Coal**

No. and Description of Boilers **Three Single Ended Multitubular** Working Pressure **220 lbs. per sq. in.**

Tested by hydraulic pressure to **380 lbs. per sq. in.** Date of test **16.11.42** No. of Certificate **4088** Can each boiler be worked separately **Yes**

Area of Firegrate in each boiler **51 sq. ft.** No. and Description of Safety valves to each boiler **One double spring safety valve**

Area of each set of valves per boiler { per Rule **8.87 sq. in.** Pressure to which they are adjusted **220 lbs.** Are they fitted with easing gear **Yes**

Smallest distance between boilers or uptakes and bunkers or woodwork **6'-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 diameter of boilers **14'-6-3/16"** Length **11'-9"** Shell plates: Material **O H Steel** Tensile strength **29-33 tons per sq. in.**

Thickness **1-13/32"** Are the shell plates welded or flanged **No** Description of riveting: circ. seams { end **Double**

Long. seams **Triple zig zag** Diameter of rivet holes in { circ. seams **1 1/2"** Pitch of rivets { **4-3/16"**

Percentage of strength of circ. end seams { plate **64.0%** rivets **47.0%** Percentage of strength of circ. intermediate seam { plate **--** rivets **--**

Percentage of strength of longitudinal joint { plate **85.6%** rivets **92.9%** combined **88.7%**

Thickness of butt straps { outer **1-3/32"** inner **1-7/32"** No. and Description of Furnaces in each Boiler **3 Morrison Corrugated**

Material **O H Steel** Tensile strength **26-30 tons** Smallest outside diameter **41 inches**

Length of plain part { top **--** bottom **--** Thickness of plates { crown **21/32"** Description of longitudinal joint **Lap weld**

Dimensions of stiffening rings on furnace or c.c. bottom **--**

End plates in steam space: Material **O H Steel** Tensile strength **26-30 tons** Thickness **1-7/16"** Pitch of stays **21" x 21"**

How are stays secured **Inside and outside nuts**

Tube plates: Material { front **O H Steel** back **O H Steel** Tensile strength { **26/30 tons** Thickness { **31/32"** **13/16"**

Mean pitch of stay tubes in nests **10-5/8" x 8 1/2" = 9.4375** Pitch across wide water spaces **14 1/2"**

Girders to combustion chamber tops: Material **O H Steel** Tensile strength **29/32 tons** Depth and Thickness of girder

at centre **2 @ 10 1/4" x 7/8"** Length as per Rule **34 inches** Distance apart **11 inches** No. and pitch of stays

in each **3 @ 7-5/8"** Combustion chamber plates: Material **O H Steel**

Tensile strength **26/30 tons** Thickness: Sides **25/32"** Back **23/32"** Top **25/32"** Bottom **25/32"**

Pitch of stays to ditto: Sides **10-3/16" x 9"** Back **9" x 9"** Top **11" x 7-5/8"** Are stays fitted with nuts or riveted over **Nutted**

Front plate at bottom: Material **O H Steel** Tensile strength **26-30 tons**

Thickness **31/32"** Lower back plate: Material **O H Steel** Tensile strength **26-30 tons** Thickness **29/32"**

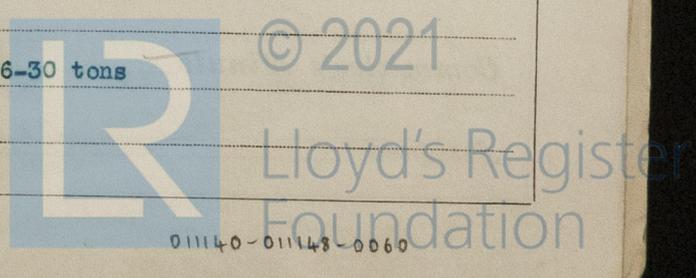
Pitch of stays at wide water space **11 1/2" x 9"** Are stays fitted with nuts or riveted over **Nutted**

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

Diameter { At body of stay **3 1/2 inches** No. of threads per inch **6**

Screw stays: Material **O H Steel** Tensile strength **26-30 tons**

Diameter { At turned off part **1 1/2"** No. of threads per inch **9**



Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part... or Over threads... 2"

No. of threads per inch 9

Tubes: Material Steel External diameter { Plain 3" Stay 3" Thickness { 8 S W G 5/16" & 3/8" No. of threads per inch 9

Pitch of tubes 10-5/8" x 8-1/4" Manhole compensation: Size of opening in shell plate None Section of compensating ring - - No. of rivets and diameter of rivet holes - -

Outer row rivet pitch at ends - - Depth of flange if manhole flanged 4 1/2" in back end plate 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 - - Thickness of crown - - No. and diameter of stays - -

How connected to shell - - Inner radius of crown - -

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. Penn., Steel forgings The Superheater Co., Sherbrooke, P. Steel castings " " " "

Number of elements 58 Material of tubes S D Steel Internal diameter and thickness of tubes .69 .095

Material of headers O H Steel Tensile strength 33.5 tons Thickness 1-1/8" min. 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 -

Pressure to which the safety valves are adjusted 220 lbs. per sq. in. Hydraulic test pressure: tubes 1500 lbs. per sq. in. forgings and castings 700 lbs. per sq. in. and after assembly in place 400 lbs. per sq. in. 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. S. Hall.

Dates of Survey { During progress of work in shops - - } Oct. 19, 21, 22, 26, 28, 29, Nov. 3, 4, 7, 9, 11, 12, 16, 17, 19, 21, 24, 26, 30, Dec. 1 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building { During erection on board vessel - - } 1942-Sept. 22, 29, Oct: 3, 8, 16, 21, 28, Nov: 7, 14, 19, 24, 30, Dec: 11, 16, 24 Total No. of visits 25 & 39 = 64

1943-Jan: 7, 13, 18, 27 Feb: 4, 10, 16, 19, 26 Mar: 3, 9, 13, 19, 24, 30 April-3, 10, 15, 22, 30 May: 6, 9, 13, 16

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. S.S. "FORT TADOUSSAC" S.S. "PRINCE ALBERT PARK".

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. They were tested hydrostatically at 380 lbs. per square inch pressure, and found good. They have been properly installed, and the safety valves adjusted under steam at 220 lbs. per square inch, and washers noted.

The longitudinal seams of the front and back end plates of these BOILERS have been welded by the Union Melt Process.

For further particulars see Approved Plans and results of tests.

Survey Fee ... \$ 150⁰⁰ : When applied for, June 5 1943

Travelling Expenses (if any) \$: When received, 19

Included with Hull Rpt.

A. S. Hall
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 9 JUL 1943

Assigned see minute on F.S. Rpt.

