

REPORT ON WATER TUBE BOILERS.

No. 6046

Received at London Office. 12 FEB 1944

Date of writing Report **8th Dec. 1943** When handed in at Local Office **8th Dec. 1943** Port of **Vancouver, B.C.**
 No. in Survey held at **North Vancouver, B.C.** Date, First Survey **August 11, 1943** Last Survey **November 29th 1943**
 Reg. Bk. on the **Steel Single Screw Steamer, "BEATON PARK"** (Number of Visits **31**) { Gross **7163.90**
 Tons { Net **4250.28**
 Built at **North Vancouver, B.C.** By whom built **Burrard Dry Dock Co. Ltd.** When built **1943**
 Engines made at **Toronto, Ont.** By whom made **John Inglis Co. Ltd.** When made **1943**
 Boilers made at **Vancouver, B.C.** By whom made **Vancouver Iron Works Ltd.** When made **1943**
 Nominal Horse Power **643 628** Owners **Park Steamship Co. Ltd.,** Port belonging to **-----**

WATER TUBE BOILERS—MAIN, ~~XXXXXXXXXXXXXXXXXXXX~~ Manufacturers of Steel **Steel Co. of Canada Page-Hersey Tubes & Combustion Eng. Co., Chattanooga**

Date of Approval of plan **17-7-43** Number and Description of Type **2 Sinuous Header Watertube** Working Pressure **250 lbs.** Tested by Hydraulic Pressure to **425 lbs.** Date of Test **18-8-43**

No. of Certificate **558 and 559** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **9,704 sq. ft (2Blrs.)**

Is forced draught fitted **Yes** Area of fire grate (coal) in each Boiler **---**

No. and type of burners (oil) in each boiler **4- Todd "Hex Press" Burners**

No. and description of safety valves on each boiler **One Twin 4" Consolidated** Area of each set of valves per boiler { per rule **22.9 sq. in.** as fitted **25.14 sq. in.** Pressure to which they are adjusted **250 lbs.** Are they fitted with easing gear **Yes**

In case of donkey boilers state whether steam from main boilers can enter donkey boiler **-----** Smallest distance between boilers or uptakes and bunkers or woodwork **23"** Height of boiler **16'-5-5/8"**

Width and Length **14'x7 3/4" x 18'-7 1/2"** Steam Drums:—Number in each boiler **One** Inside diameter **47-3/8"**

Thickness of plates **15/16"** Range of Tensile Strength **70,000 to 82,000 lbs.** Are drum shell plates welded or flanged **welded**

If fusion welded, state name of welding firm **Vancouver Iron Works, Limited** Have all the requirements of the rules for Class I vessels been complied with **Yes**

Description of riveting:—Cir. seams **-----** long. seams **-----**

Diameter of rivet holes in long. seams **---** Pitch of rivets **---** Thickness of straps **---** Percentage strength of long. joint:—Plate **---** Rivet **---**

Diameter of tube holes in drum **4-1/32"** Pitch of tube holes **7"**

Percentage strength of shell in way of tubes **42.5** Steam Drum Heads or Ends:—Range of tensile strength **65,000 to 77,000 lbs.**

Thickness of plates **15/16"** Radius or how stayed **38"** Size of manhole or handhole **12" x 16"** Water Drums:—Number in each boiler **One** Inside Diameter **5 3/4" sq.** Thickness of plates **3/4"** Range of tensile strength **60000-70000 lbs.**

Are drum shell plates welded or flanged **solid drawn** If fusion welded, state name of welding firm **-----** Have all the requirements of the rules for Class I vessels been complied with **-----**

Description of riveting:—Cir. seams **---** long. seam **---**

Diameter of rivet holes in long. seams **---** Pitch of rivets **---** Thickness of straps **---**

Percentage strength of long. joint:—Plate **---** Rivet **---** Diameter of tube holes in drum **4-1/32"** Pitch of tube holes **7"**

Percentage strength of drum shell in way of tubes **42.5** Water Drum Heads or Ends:—Range of Tensile strength **60,000 to 70,000 lbs.**

Thickness of plates **9/16" min.** Radius or how stayed **handholes in end** Size of manhole or handhole **4 1/2" x 5 1/2"**

Leaders or Sections:—Number **22** Material **Steel** Thickness **9/16"** Tested by Hydraulic Pressure to **500 lbs.**

Tubes:—Diameter **2" and 4"** Thickness **10&6 BWG (134")** Number **602-2" 44-4"** Steam Dome or Collector:—Description of joint to Shell **---** Inside diameter **---** Thickness of shell plates **---** Range of tensile strength **---**

If fusion welded, state name of welding firm **---** Have all the requirements of the rules for Class I vessels been complied with **---** Diameter of rivet holes **---**

Pitch of rivets **---** Thickness of straps **---** Percentage strength of long. joint **---** Plate **---** Rivet **---**

Drum or End Plates:—Range of tensile strength **---** Thickness **---** Radius or how stayed **---**

SUPERHEATER. Drums or Headers:—Number in each boiler **two** Inside Diameter **6" square**

Thickness **3/8"** Material **Steel** Range of tensile strength **60,000 to 70,000 lbs.** Are drum shell plates welded or flanged **forged**

If fusion welded, state name of welding firm **---** Have all the requirements of the rules for Class I vessels been complied with **---**

Description of riveting:—Cir. seams **---** long. seams **---**

Diameter of rivet holes in long. seams **---** Pitch of rivets **---** Thickness of straps **---** Percentage strength of long. joint:—Plate **---** Rivet **---**

Diameter of tube holes in drum **2-1/64"** Pitch of tube holes **3-3/4"** Percentage strength of drum shell in way of tubes **46%**

Drum Heads or Ends: **welded to inlet and outlet nozzles** Range of tensile strength **---**

Radius or how stayed **---** Size of manhole or handhole **es 4 1/2" x 5 1/2"** Number diameter & Thickness **22 off 2" 134 wall of tubes 10 BWG**

Tested by Hydraulic Pressure to **425 lbs.** Date of Test **18-8-43, 19-8-43** Is a safety valve fitted to each section of the superheater which can be shut off from the boiler **Yes**

No. and description of Safety Valves **One** Area of each set of valves **1.76 sq. inches** Pressure to which they are adjusted **230 lbs.** Is easing gear fitted **No**

Spare Gear. Has the spare gear required by the rules been supplied **Yes**

NOTES:— Headers, Superheater headers and mud drums manufactured by **Combustion Engineering Co. Inc.** at **Chattanooga, Tennessee** under American Bureau Inspection.

The foregoing is a correct description, **VANCOUVER IRON WORKS LTD** Manufacturer.

Dates of Survey } During progress of work in shops **Aug. 11, 12, 13, 16, 17, 18, 19, 20 & 21** Is the approved plan of boiler forwarded herewith **No.**

while } During erection on building board vessel **Sept. 17, 20, 22, 23, 27, 30 Oct. 1, 6, 20, 25, 27** Total No. of visits **31** Plans in U.K.

28 Nov. 1, 3, 4, 5, 6, 10, 12, 13, 15, 16, 17, 18, 20, 22, 23, 24, 25, 27, 29.

Is this boiler a duplicate of a previous case **Yes** If so, state vessel's name and report No. **S.S. "FORT COLUMBIA" Vncr. Rpt. No 5942**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **These boilers have been built and fitted on board under Special Survey in accordance with the approved plans, New York letters and the Rules.**

The workmanship is good and the materials tested as per Rule. Satisfactorily tested under hydraulic pressure as above, examined under working conditions, safety valves adjusted to the I.P. and a satisfactory accumulation test carried out.

Survey Fee **\$150.00** When applied for **30th Nov 43**

Travelling Expenses (if any) **\$ 15.00** When received, **✓ 19**

Committee's Minute Assigned **See fl machey opt.**

TUES. 22 FEB 1944 **W. B. Baillie** Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

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