

REPORT ON WATER TUBE BOILERS.

Received at London Office

21 AUG 1944

Date of writing Report **21st June 1944** When handed in at Local Office **21st June, 1944** Port of **Vancouver, B. C.**
 No. in Survey held at **Vancouver & Victoria, B. C.** Date, First Survey **5th April, 1944** Last Survey **6th June, 1944**
 Reg. Bk. on the **Steel Single Screw Steamer "SALT LAKE PARK"** (Number of Visits **34**) Tons { Gross **7166.01**
 Net **4219.75**
 Built at **Victoria, B. C.** By whom built **Victoria Machinery Depot Co. Ltd.** When built **1944**
 Engines made at **Lachine P. Q.** By whom made **Canadian Allis-Chalmers Ltd.** When made **1944**
 Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works, Ltd.** When made **1944**
 Nominal Horse Power **628** Owners **Minister of Munitions & Supply of Canada (Mfrs. Park Steamship Co. Ltd.)** Part belonging to **Montreal, P. Q.**

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY—Manufacturers of Steel **Steel Co. of Canada, Page-Hersey Tubes, Combustion Eng. Co., Chattanooga.**

Date of Approval of plan **17-7-43** (Spt. 230 lb.) Number and Description of Type of Boilers **2 Sinuous Header Watertube** Working Pressure **250 lbs.** Tested by Hydraulic Pressure to **425 lbs.** Date of Test **28-3-44**

No. of Certificate **683 - 684** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **9704 sq. ft. (2 Bhrs)**

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" spring loaded** Area of each set of valves per boiler { per rule **22.9 sq. in.** as fitted **25.14 " "** 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 **24'-7 1/2" x 18'-7 1/2"** Steam Drums:—Number in each boiler **One** Inside diameter **47 3/4"**

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, Ltd.** 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 1/2" sq.** Thickness of plates **3/4"** Range of tensile strength **60,000-70,000 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"**

Headers or Sections:—Number **22** Material **Steel (.134"** Thickness **9/16"** Tested by Hydraulic Pressure to **500 lbs.**

Tubes:—Diameter **2" & 4"** Thickness **10&6 BWG (.203"** Number **602-2". 44-4"** Steam Dome or Collector:—Description of Joint to Shell **-** Inside diameter **-** Thickness of shell plates **-** Range of tensile strength **-** Description of longitudinal joint **-** 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 **-**

Crown 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 **5/8"** 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** Thickness **-** Range of tensile strength **-**

Radius or how stayed **-** Size of manhole or handhole **4 1/2" x 5 1/2"** Number, diameter, and thickness of tubes **22 of 2" OD 10BWG .134 wall.**

Tested by Hydraulic Pressure to **425 lbs.** Date of Test **28-3-44 - 29-3-44** 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**

Note. Headers, Superheater headers and mud drums manufactured by **Combustion Engineering Co. Inc. at Chattanooga, Tennessee, under Mobile Surveyors inspection and certificate.**

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

Dates of Survey } During progress of work in shops **1944 March 22, 23, 24, 27, 28, 29 & 31** Is the approved plan of boiler forwarded herewith **No**
 while } During erection on board vessel **1944 April 5, 6, 7, 13, 15, 18, 28 May 1, 3, 4, 6, 11, 12, 16, 18, 19, 20, 23, 26, 27, 30 & 31** Plans in U.K.
 building } Total No. of visits **34** June **1, 2, 3, 5 & 6**

Is this boiler a duplicate of a previous case **Yes** If so, state vessel's name and report No. **"FORT COLUMBIA" (Ver. Report 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 W.P. and a satisfactory accumulation test carried out.

Survey Fee **\$150.00** When applied for **12th June, 1944**
 Travelling Expenses (if any) **\$ 15.00** When received **19**

Committee's Minute
 Assigned **see minute on 15.8.44**

TUES. 29 AUG 1944

R. J. Moore Engineer Surveyor to Lloyd's Register of Shipping.

