

## REPORT ON WATER TUBE BOILERS.

No. 6118

Received at London Office.

Report of writing Report 23rd Feb., 1944 When handed in at Local Office 23rd Feb., 1944 Port of Vancouver, B. C.  
 No. in Survey held at Vancouver, B. C. Date, First Survey 22nd Nov., 1943 Last Survey 21st February, 1944  
 Reg. Bk. on the Steel Single Screw Steamer "ARLINGTON BEACH PARK" (Number of Visits 16) Gross 7241.52  
 Tons Net 4181.45  
 Built at Vancouver, B. C. By whom built West Coast Shipbuilders, Ltd. When built 1944  
 Engines made at Montreal, Que. 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 Owner Minister of Munitions & Supply of Canada. (Mrs. Park Steamship Co. Ltd.) Port 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 Number and Description or Type  
 Boilers 2 Sinuous Header Watertube Working Pressure 250 lbs. (Spt. 230 lb.) Tested by Hydraulic Pressure to 425 lbs. Date of Test 2-12-43  
 No. of Certificate Nos. 623 & 626 Can each boiler be worked separately Yes Total Heating Surface of Boilers 9704 sq. ft. (2 Birs.)  
 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. of boiler One Twin 4" spring loaded Area of each set of valves per boiler { per rule 22.9 sq. in. No. and description of safety valves on expt 23.9 with sp at 450  
 as fitted 25.14 " " Pressure to which they 1.76 sq. in.  
 No. of donkey boiler -- Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter  
 Smallest distance between boilers or uptakes and bunkers or woodwork 23" Height of boiler 16'-5-5/8"  
 Width and Length 14'-7 1/2" 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  
 Flanged Welded If fusion welded, state name of welding firm Vancouver Iron Works, Ltd. Have all the requirements of the rules  
 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  
 g. 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  
 each boiler One Inside Diameter 5 3/8" 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  
 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"  
 Readers or Sections:—Number 22 Material Steel Thickness 9/16" Tested by Hydraulic Pressure to 500 lbs.  
 Tubes:—Diameter 2" & 4" Thickness 10 & 6 BWG { .134" .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  
 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  
 Flanged Forged If fusion welded, state name of welding firm -- Have all the requirements of the rules  
 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  
 g. 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 4 1/2" x 5 1/2" Number, diameter, and thickness of tubes 22 off 2" OD 10BWG  
 Tested by Hydraulic Pressure to 425 lbs. Date of Test 2-12-43 & 3-12-43 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  
 valves 1.76 sq. inches Pressure to which they are adjusted 230 lbs. Is easing gear fitted No  
 Are 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 Nov. 22, 25, 26, 27, 29, 30. Dec. 2, 3, 6. Is the approved plan of boiler forwarded herewith No.  
 { During erection on board vessel 1944. Feb. 5, 8, 9, 10, 11, 19, 21. Plans in U.K.  
 Total No. of visits 16

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. "FORT COLUMBIA" (Vcr. 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 23rd Feb. 1944  
 Travelling Expenses (if any) \$15.00 When received 19

Committee's Minute

Signed

THURS 11 MAY 1944

See fee machy rpt.

Engineer Surveyor to Lloyd's Register of Shipping

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