

# REPORT ON WATER TUBE BOILERS.

No. 6097

Received at London Office 22 MAR 1944

of writing Report **7th Feb., 44** When handed in at Local Office **7th Feb., 1944** Port of **Vancouver, B. C.**  
 No. in Survey held at **Vancouver, B. C.** Date, First Survey **1st Nov., 1943** Last Survey **31st Jan., 1944**  
 on the **Steel Single Screw Steamer "MOOSE MOUNTAIN PARK"** (Number of Visits **16**) Tons {Gross **6746.62**  
 Net **4183.47**  
 at **Vancouver, B. C.** By whom built **West Coast Shipbuilders, Ltd.** When built **1944**  
 lines made at **Toronto, Ont.** By whom made **John Inglis Co. Ltd.** When made **1944**  
 lers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works, Ltd.** When made **1944**  
 minimal Horse Power **628** Owners **Minister of Munitions & Supply of Canada. (Mtrs. 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.**  
 of Approval of plan **17-7-43** Number and Description or Type **(Spt. 230 lb.)**  
 Boilers **2 Sinuous Header Watertube** Working Pressure **250 lbs.** Tested by Hydraulic Pressure to **425 lbs.** Date of Test **9-11-43 & 10-11-43.**  
 of Certificate **Nos. 610 & 611** 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 **--**  
 and type of burners (oil) in each boiler **4 Todd "Hex-Press" Burners** No. and description of safety valves on **23.9. with Spt at 450°**  
 boiler **One Twin 4" spring loaded** 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 **1.76 Spt**  
 donkey boiler **--** 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"**  
 Length and Diameter **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 **Welded**  
 If fusion welded, state name of welding firm **Vancouver Iron Works, Ltd.** Have all the requirements of the rules **Yes**  
 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 **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 **Certs received** 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"**  
 Headers or Sections:—Number **22** Material **Steel** Thickness **9/16"** Tested by Hydraulic Pressure to **500 lbs.**  
 Diameter **2" & 4"** Thickness **10&6 BWG (.134" / .203")** Number **602-2", 44-4".** Steam Dome or Collector:—Description of **--**  
 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 **--**  
 Thickness of straps **--** Percentage strength of long. joint **--** Plate **--** Rivet **--**  
 Range of tensile strength **--** Thickness **--** Radius or how stayed **--**

**PERHEATER. 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 **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 long. joint:—Plate **--** Rivet **--**  
 Diameter of tube holes in drum **2-1/64"** Pitch of tube holes **3-3/4"** Percentage strength of shell in way of tubes **46%**  
 Drum Heads or Ends: **Welded to inlet and outlet nozzles.** Range of tensile strength **--**  
 Size of manhole or handhole **4 1/2" x 5 1/2"** Number, diameter, and thickness of tubes **22 off 2" OD 10BWG .134 wall.**  
 Tested by Hydraulic Pressure to **425 lbs.** Date of Test **9-11-43 and 10-11-43** 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**

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

During progress of work in shops **1943. Nov. 1, 4, 5, 6, 8, 9, 10, 12, 13.** Is the approved plan of boiler forwarded herewith **No**  
 During erection on board vessel **1943. Dec. 31.** Plans in U.K.  
**1944. Jan. 10, 21, 22, 25, 29, 31.** Total No. of visits **16**

Is 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 under Special Survey in accordance with the approved plans, New York letters and the Rules. 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. **2nd Feb., 1944**  
 Survey Fee **\$150.00** When applied for **2nd Feb., 1944**  
 Travelling Expenses (if any) **\$15.00** When received **19**

Committee's Minute **FRI. 14 APR 1944**  
 signed **see minute on J.E. Rpt.**  
 Engineer Surveyor to Lloyd's Register of Shipping.  
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