

REPORT ON WATER TUBE BOILERS.

No. 6035

Received at London Office.

21 JAN 1944

Date of writing Report: 3rd Dec. 1943 When handed in at Local Office: 3rd Dec. 1943 Port of Vancouver, B. C.
 No. in Survey held at Vancouver & North Vancouver, B.C. Date, First Survey: 5th August, 1943 Last Survey: 19th November, 1943.
 Reg. Bk. on the Steel Single Screw Steamer, "FORT ORLEANS" (Number of Visits: 32) Gross 7165.78 Tons Net 4249.51
 Built at Vancouver, B. C. By whom built Burrard (Vancouver) Dry Dock Co. Ltd. When built 1943.
 Engines made at Montreal, P.Q. By whom made Canadian Allis-Chalmers, Limited When made 1943.
 Boilers made at Vancouver, B. C. By whom made Vancouver Iron Works, Ltd. When made 1943.
 Nominal Horse Power 643 Owners Minister of Munitions and Supply of Canada. Port belonging to --

WATER TUBE BOILERS—MAIN, ~~ASSEMBLED, UNTESTED~~—Manufacturers of Steel: Steel Co. of Canada, Page-Hersey Tubes, & Combustion Engineering Co. Inc.

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 10-8-43 and 11-8-43
 No. of Certificate 550 & 551 Can each boiler be worked separately Yes Total Heating Surface of Boilers 9,704 sq. ft. (2 Boilers)
 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

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. }
 No. and description of safety valves on each boiler 23.9 with 23.9 with 45-0°F 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'-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, 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 53 sq.in. Thickness of plates 3/4" Range of tensile strength 60,000-70,000 lbs. 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" Tested by Hydraulic Pressure to 500 lbs.

Leaders or Sections: Number 22 Material Steel Thickness 9/16" Number 602-2" 44-4" Steam Dome or Collector: Description of tubes: Diameter 2" & 4" Thickness 10 & 6 BWG. (:134") Number 602-2" 44-4" Range of tensile strength --- If fusion welded, state name of welding firm ---
 Joint to Shell --- Inside diameter --- Thickness of shell plates --- Range of tensile strength --- Description of longitudinal joint --- 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 ---
 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 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 & 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 1/4" wall 10 BWG

Tested by Hydraulic Pressure to 425 lbs. Date of Test 10-8-43 and 11-8-43 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 square 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 American Bureau Inspection

The foregoing is a correct description.

Vancouver Iron Works Ltd. Manufacturer.

Dates of Survey During progress of work in shops Aug-5, 6, 7, 9, 10, 11, 12, 13; Is the approved plan of boiler forwarded herewith No
 During erection on board vessel Aug-25, 28; Sept-13, 24, 27; Oct-2, 15, 25, 27; Plans in U.K.
 building Oct-28; Nov-1, 2, 3, 4, 5, 8, 10, 12, 13, 15, 19; Total No. of visits 32.
 Nov-16, 17, 18, 19.

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

Survey Fee \$150.00 : When applied for, 22nd Nov. 43.
 Travelling Expenses (if any) \$ 10.00 : When received, 19

Committee's Minute See for marks etc.
 Assigned

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

003282-003281-019