

REPORT ON WATER TUBE BOILERS.

No. 6001

DEC 1943

Received at London Office

Writing Report on the 19th Oct., 1943 When handed in at Local Office 19th Oct., 1943 Port of Vancouver, B.C.
 Survey held at North Vancouver, B.C. Date, First Survey 20th June, 1943 Last Survey 9th October, 1943
 on the Steel Single Screw Steamer S.S. "FORT PANMURE" (Number of Visits 17) Tons {Gross 7155.26
 Net 4238.12
 made at North Vancouver, B.C. By whom built North Van Ship Repairs Ltd. When built 1943
Toronto, Ontario By whom made John Inglis Co. Ltd. When made 1943
 made at Vancouver, B.C. By whom made Vancouver Iron Works Ltd. When made 1943
 Horse Power 636 Owner Minister of Munitions & Supply of Canada. Port belonging to --

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY—Manufacturers of Steel Canada Steel Co. Ltd.—Page Hersey Tubes.

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 7-7-43
 Certificate 517 & 514 Can each boiler be worked separately Yes Total Heating Surface of Boilers 9704 sq. ft.

draught fitted Yes Area of fire grate (coal) in each Boiler --
 and type of burners (oil) in each boiler 4. Todd "Hex-Press" Burners

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 23.9 sq. in. 23.9 with 450 psi
 adjusted 250 lbs. Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter 16 5/8"
 donkey boiler -- Smallest distance between boilers or uptakes and bunkers or woodwork 23" Height of boiler 16 5/8"

Number and Length 14"-7 1/2" x 18" 7 1/2" Steam Drums:—Number in each boiler One Inside diameter 47 1/2"
 thickness of plates 15/16" Range of Tensile Strength 70,000 to 82,000 lbs. Are drum shell plates welded --

Class I vessels been complied with welded If fusion welded, state name of welding firm Vancouver Iron Works Ltd. Have all the requirements of the rules --
 diameter of rivet holes in long. seams -- Description of riveting:—Cir. seams -- long. seams --
 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 1/2" 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 -- long. seam --

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 --
 joint:—Plate -- Rivet -- Diameter of tube holes in drum 4-1/32" Pitch of tube holes 7"

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" minimum 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 (20 3/4") Number 602-2", 44-4" Steam Dome or Collector:—Description of --
 inside diameter -- Thickness of shell plates -- Range of tensile --

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 --
 thickness of straps -- Percentage strength of long. joint -- Plate -- Rivet --

down or end plates:—Range of tensile strength -- Thickness -- Radius or how stayed --
 UPPER HEATER. 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 -- long. seams --

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 --
 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 in inlet 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 off 2" O.D. 10BWG
.134 Wall

tested by Hydraulic Pressure to 425 lbs. Date of Test One 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. in. Pressure to which they are adjusted 230 lbs. Is easing gear fitted No

Easing Gear. Has the spare gear required by the rules been supplied Yes
 Note: Headers, superheater headers and mud drums manufactured Vancouver Iron Works Ltd.
Combustion Engineering Co. Inc. at Chattanooga, Tennessee, The foregoing is a correct description,
American Bureau of Inspection. C. J. Brown Manufacturer.

Dates of Survey 1943 Is the approved plan of boiler forwarded herewith No
 while June 28, 29, July 2, 5, 7, 9. Plans in U.K. --
 building Sept. 16, 23, 24, 25, 27, 28, 30. Oct. 6, 7, 8 & 9. Total No. of visits 17

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. "FORT COLUMBIA" Vanc. 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 sat-
isfactory accumulation test carried out.

Survey Fee \$ 150.00 When applied for, Oct. 13, 1943
 Travelling Expenses (if any) \$ 15.00 When received, 19

TUES 14 DEC 1943
 Committee's Minute See for machinery etc.
 Assigned --

R. K. Brown & D. J. Archibald (Acting)
 Engineer Surveyors to Lloyd's Register of Shipping.

