

REPORT ON WATER TUBE BOILERS.

No. 7090

16 DEC 1946

Received at London Office.

of writing Report 30 Oct., 1946 When handed in at Local Office 30 Oct., 1946 Port of Vancouver, B. C.
 No. in Survey held at Vancouver, B. C. Date, First Survey 19 March, 1945 Last Survey 16th Oct., 1946
 on the Single Screw Steamer "RABAU" (Launched at H.M.S. "OXFORDNESS") (Number of Visits 24) Tons { Gross 7348.93
 Net 4577.35
 Built at Vancouver, B. C. By whom built West Coast Shipbuilders Ltd. When built 1945
 Engines made at Lachine, Que. By whom made Dominion Engineering Works Ltd. When made 1944
 Boilers made at Vancouver, B. C. By whom made Vancouver Iron Works Ltd. When made 1945
 Nominal Horse Power 651 Owners W.R. Carpenter (Canada) Ltd. Port belonging to Suva, Fiji Islands

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

of Approval of plan 17 - 7 - 43 Number and Description of Type 28/3/45
 Boilers 2 B. & W. Sinuous Header Water Working Pressure 250 Tested by Hydraulic Pressure to 425 Date of Test 29/3/45
 No. of Certificate 839 & 840 Can each boiler be worked separately Yes Total Heating Surface of Boilers 9704 sq. ft. for 2 Birs.

forced draught fitted Yes Area of fire grate (coal) in each Boiler Oil burners fitted
 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 sq. in. 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 3/4" 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 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 65000 to 77000 lb.

Thickness of plates 15/16" Radius or how stayed 38" Size of manhole or handhole 16" x 12" Water Drums:—Number

each boiler One Inside Diameter 5 3/4" square Thickness of plates 3/4" Range of tensile strength 60000 to 70000 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 60000 to 70000 lbs.

Thickness of plates 9/16" Radius or how stayed Hand holes in end Size of manhole or handhole 4 1/2" x 5 1/2"

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

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 60000 to 70000 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:—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" D.D.

Tested by Hydraulic Pressure to 425 lbs. Date of Test 28-3-45 & 29-3-45 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 spring loaded Area of each set

of valves 1.76 sq. in. Pressure to which they are adjusted 230 Is easing gear fitted No

Spare Gear. Has the spare gear required by the rules been supplied Yes

Note:— Headers, superheater headers & mud drums manufactured by Combustion Engineering Co. Inc., Chattanooga, Tenn. under Mobile Surveyors inspection & Certificate.

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

Dates of Survey } During progress of work in shops - 1945 Mar. 19, 20, 21, 22, 23, 26, 27, 28 & 29 Is the approved plan of boiler forwarded herewith No
 while building } During erection on board vessel July 18, 26 Sept. 3, 4, 5, 6 Oct. 7, 16 1945 July 11, 12, 16, 17, 20, 27, 31 1946 Total No. of visits 24

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. "FORT COLUMBIA" Vcr. Rpt. No. 5942.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed and installed on board under Special Survey in accordance with the Rules, approved plans and New York

letters. The materials have been tested, found efficient and the workmanship is good. They have been satisfactorily tested by hydraulic pressure as stated above, examined under working conditions.

Safety valves adjusted under steam as above and accumulation tests carried out satisfactorily.

Survey Fee \$150.00 * : } When applied for, 5 Dec. 1945 *
 17 Oct. 46
 Travelling Expenses (if any) \$ 14.00 * : } When received, 21 Dec. 1945 * (\$164.00)
 B.S. \$ 82.50

Committee's Minute FRI. 10 JAN 1947

Assigned See F.E. mahy. rpt

