

# REPORT ON WATER TUBE BOILERS.

No. 6310

Received at London Office

25 OCT 1944 26 OCT 1944

of writing Report **6th Sept., 44** When handed in at Local Office **6th Sept., 44** Port of **Vancouver, B. C.**  
 No. in Survey held at **Vancouver, B. C.** Date, First Survey **29th March, 1944** Last Survey **22nd August, 1944**  
 g. Bk. on the **Steel Single Screw Steamer "FORT ALABAMA"** (Number of Visits **42**) {Gross **7201.75**  
 Tons {Net **4006.91**  
 at **Vancouver, B. C.** By whom built **Burrard Dry Dock Co. Ltd.** When built **1944**  
 Lines made at **Lachine, P. Q.** 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**  
 Indicated Horse Power **628** Owners **Minister of Munitions & Supply of Canada** Port belonging to **- -**

WATER TUBE BOILERS—MAIN, ~~MANUFACTURED BY BURNERS~~ 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 of Certificate **690 - 691** Working Pressure **250 lbs. (Spt. 230 lb.)** Tested by Hydraulic Pressure to **425 lbs.** Date of Test **11-4-44**

Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **9704 sq. ft. (2 Hrs.)**

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**

boiler **One Twin 4" spring loaded** Area of each set of valves per boiler {per rule **22.9 sq. in.** *ex spt = 23.9 with spt at 450°*  
 as fitted **24.14 " " + (s.)** Pressure to which they

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"**

lb 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

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 1/2" sq.** Thickness of plates **3/4"** Range of tensile strength **60,000 - 70,000** Are drum shell plates

welded or flanged **Solid drawn** If fusion welded, state name of welding firm **- -** lbs. 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.**

Thickness **10 & 6 BNG (.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 **- -**

Number of rivets **- -** Thickness of straps **- -** Percentage strength of long. joint **- -** Plate **- -** Rivet **- -**

Down 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

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 thickness 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 of 2" OD 10BWG**

Tested by Hydraulic Pressure to **425 lbs.** Date of Test **6-4-44 - 11-4-44** 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**

Are Gear Has the spare gear required by the rules been supplied **Yes**

ie. 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 } **1944 March 29 & 31 April 3, 4, 5, 6, 11** Is the approved plan of boiler forwarded herewith **No, Plans in U.K.**

while } During erection on } **1944 May 2, 4, 5, 8, 9, 11, 12, 15, 16, 17, 19, 23** Total No. of visits **42**

building } board vessel - - } **25, 27, 29 June 1, 3, 6, 7, 8, 10, 13, 14, 16, 19, 20, 21 Aug. 5, 9, 14, 15, 19, 21, 22**

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 Aug. 1944**

Travelling Expenses (if any) **\$ 15.00** When received **✓ 19**

Committee's Minute **FRI. 3 NOV 1944**

Assigned **see minute on J.S. Rpt.**

*W. B. Baillie*  
 Engineer Surveyor to Lloyd's Register of Shipping.

