

REPORT ON WATER TUBE BOILERS.

No. 6135

Received at London Office

Date of writing Report **15th March, 1944** When handed in at Local Office **15th March, 1944** Port of **Vancouver, B. C.**
 No. in Survey held at **Vancouver, B. C.** Date, First Survey **27th November, 1943** Last Survey **8th March, 1944**
 Name of vessel **Steel Single Screw Steamer "FORT LA HAVE"** (Number of Visits **27**)
 Location **North Vancouver, B. C.** By whom built **Burrard Dry Dock Co. Ltd.** When built **1944**
 Engines made at **Lachine, P. Q.** 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 **1944**
 Indicated Horse Power **628** Owners **Minister of Munitions & Supply of Canada.** Port belonging to **--**

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel **Steel Co. of Canada, Page Hersey Tubes & Combustion Eng. Co., Chattanooga.**
 Date of Approval of plan **17-7-43** Number and Description of Type **(SPT. 230 lb.)**
 Boilers **2 Sinuous Header Watertube** Working Pressure **250 lbs.** Tested by Hydraulic Pressure to **425 lbs.** Date of Test **7-12-43 & 8-12-43**
 No. of Certificates **627 & 628** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **9704 sq.ft. (2 Blrs.)**
 Forced draught fitted **Yes** Area of fire grate (coal) in each Boiler **--**
 Name and type of burners (oil) in each boiler **4 Todd "Hex - Press" Burners**

No. and description of safety valves on boiler **One Twin 4" spring loaded** Area of each set of valves per boiler { per rule **22.9 sq. in.** as fitted **25.14 " "** 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"**

Thickness and Length **14'-7 3/4" x 18'-7 3/4"** 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 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 **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 **--** lbs. Have all the requirements of the rules Class I vessels been complied with **Yes** 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"**

Boilers 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 **--** Range of tensile strength **--** If fusion welded, state name of welding firm **--** Diameter of rivet holes **--** Thickness of straps **--** Percentage strength of long. joint:—Plate **--** Rivet **--**

Superheater 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 **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.** 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" OD 10BWG .134 wall.** Tested by Hydraulic Pressure to **425 lbs.** Date of Test **7-12-43 & 8-12-43** 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**
Superheater 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.
 During progress of work in shops **Nov. 27, 29 & 30 Dec. 3, 6, 7, 8 & 9 1943** Is the approved plan of boiler forwarded herewith **No**
 During erection on board vessel **Jan. 13 & 27 Feb. 3, 4, 5, 8, 9, 19, 23, 24, 25, 26 & 29 March 1, 2, 4, 6, 7 & 8 1944** Plans in U.K.
 Total No. of visits **27**

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 board 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.**

Survey Fee **£150.00** When applied for, **8th March 1944**
 Travelling Expenses (if any) **£ 15.00** When received, **19**

Committee's Minute **See file making off.**
 Signed **W.C. Dailie** Engineer Surveyor to Lloyd's Register of Shipping.

THURS 11 MAY 1944
 Lloyd's Register of Shipping
 002410-002417-0135