

REPORT ON WATER TUBE BOILERS.

No. 6014

Received at London Office 31 DEC 1943

of writing Report **30th Oct., 1943** When handed in at Local Office **30th Oct., 1943** Port of **Vancouver, B. C.**
 to in Survey held at **Vancouver, B. C.** Date, First Survey **7th August, 1943** Last Survey **22nd Oct., 1943**
 on the **Steel Single Screw Steamer "TECUMSEH PARK"** (Number of Visits **17**) {Gross **7163.33**
 Tons } Net **4249.74**
 at **Vancouver, B. C.** By whom built **West Coast Shipbuilders, Ltd.** When built **1943**
 lines made at **Montreal, P. Q.** By whom made **Dominion Engineering Works.** When made **1943**
 ers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works, Ltd.** When made **1943**
 ninal Horse Power **543** Owners **Minister of Munitions & Supply of Canada**
 (**Mrs. Park Steamship Co. Ltd.**)

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

Boilers **2 Sinuous Header Watertube** Working Pressure **250 lbs.** Tested by Hydraulic Pressure to **425 lbs.** Number and Description of Type **12-8-43 & 17-8-43**
 of Certificate **Nos. 552 & 557** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **9704 sq. ft. (2 Blrs.)**

anced 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. ins.** *ex. spl. 23.88 with 2 1/2"*
 as fitted **25.14 sq. ins.** *+ 1.76 spl.* 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"**

th and Length **14"-7 1/2" x 18'-7 1/2"** Steam Drums:—Number in each boiler **One** Inside diameter **47-3/8"**

kness 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 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.**

kness of plates **15/16"** Radius **38"** Size of manhole or handhole **12" x 16"** Water Drums:—Number **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 **--** 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 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.**

kness 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.**

ers or Sections:—Number **22** Material **Steel** Thickness **9/16"** Steam Dome or Collector:—Description of **602-2" 44-4"**

es:—Diameter **2" & 4"** Thickness **100 & BWG (.134" .203")** Number **602-2" 44-4"** Thickness of shell plates **--** Range of tensile strength **--** 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 **--**
 of rivets **--** Thickness of straps **--** Percentage strength of long. joint **--** Plate **--** Rivet **--**

wn or End Plates:—Range of tensile strength **--** Thickness **--** Radius or how stayed **--**

PERHEATER. Drums or Headers:—Number in each boiler **Two** Inside Diameter **6" square**

kness **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 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.** Range of tensile strength **--**

us or how stayed **--** Size of manhole or handhole **4 1/2" x 5 1/2"** Number, diameter, and thickness of tube **22 off 2" OD 10BWG .134 wall.**

ed by Hydraulic Pressure to **425 lbs.** Date of Test **12-8-43 & 17-8-43** 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 sq. ins.** Pressure to which they are adjusted **230 lbs.** Is easing gear fitted **No**

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

Notes: **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. *J. J. Fraser*

During progress of work in shops **1943. Aug. 7, 9, 10, 11, 12, 16, 17, 19.** Is the approved plan of boiler forwarded herewith **No** (Plans in U.K.)

During erection on board vessel **1943. Sept. 20, 27. Oct. 4, 8, 13, 14, 15, 19, 22.** Total No. of visits **17**

Is 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 satisfactory accumulation test carried out, 27th Oct. 1943**

Survey Fee **\$150.00** When applied for **27th Oct. 1943**
 Travelling Expenses (if any) **\$15.00** When received, **19**

Committee's Minute **FRI. 7 JAN 1944**

Signed **see minute on F.E. Rpt.**

