

REPORT ON WATER TUBE BOILERS.

No. 5949

Received at London Office

of writing Report. **23rd Aug., 1943** When handed in at Local Office. **23rd Aug., 1943** Port of **Vancouver, B. C.**
 No. in Survey held at **Vancouver, B. C.** Date, First Survey **12th May, 1943** Last Survey **10th July, 1943**
 eg. Bk. on the **Steel Single Screw Steamer "FORT ASTORIA"** (Number of Visits **21**) { Gross **7188.56**
 Tons { Net **4241.65**
 Built at **Vancouver, B.C.** By whom built **West Coast Shipbuilders, Ltd.** When built **1943**
 Engines made at **Montreal, P.Q.** By whom made **Canadian Allis-Chalmers, Ltd.** When made **1943**
 Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works, Ltd.** When made **1943**
 Minimal Horse Power **636** 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.**

of Approval of plan **17-7-43** Number and Description or Type
 Boilers **2 Sinuous Header Water Tube** Working Pressure **250 lbs.** Tested by Hydraulic Pressure to **425 lbs.** Date of Test **7-6-43**
 of Certificate **Nos. 471 & 472** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **9704 (2 Blrs.)**
 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**
 No. and description of safety valves on
 b boiler **One Twin 4" Consolidated** Area of each set of valves per boiler { per rule **22.9 sq. ins.** *Provisional except.*
 as fitted **25.14 sq. ins.** + 1.76 = 26.9
 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"**
 dth 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 **--**
 meter of rivet holes in long. seams **--** Pitch of rivets **--** Thickness of straps **--** Percentage strength of
 g. joint:—Plate **--** Rivet **--** Diameter of tube holes in drum **4-1/32** Pitch of tube holes **7"**
 centage 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 **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 to 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 **--**
 meter of rivet holes in long. seams **--** Pitch of rivets **--** Thickness of straps **--**
 centage strength of long. joint:—Plate **--** Rivet **--** Diameter of tube holes in drum **4-1/32"** Pitch of tube holes **7"**
 centage 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.**
 Tubes:—Diameter **2" x 4"** Thickness **10-16BWG (1.34")** Number **602-2". 44-4"** Steam Dome or Collector:—Description of
 nt to Shell **--** Inside diameter **--** Thickness of shell plates **--** Range of tensile
 length **--** 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 **--**
 ch of rivets **--** Thickness of straps **--** Percentage strength of long. joint **--** Plate **--** Rivet **--**
 own 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 **--**
 meter of rivet holes in long. seams **--** Pitch of rivets **--** Thickness of straps **--** Percentage strength of
 g. joint:—Plate **--** Rivet **--** Diameter of tube holes in drum **2-1/64** Pitch of tube holes **3-3/4** Percentage strength of
 on shell in way of tubes **46%** Drum Heads or Ends: **Welded to inlet & outlet nozzles** Range of tensile strength **--**
 dius 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**
 ted by Hydraulic Pressure to **425 lbs.** Date of Test **7-6-43** Is a safety valve fitted to each section of the superheater which
 be shut off from the boiler **Yes** No. and description of Safety Valves **One** Area of each set
 valves **1.76 sq. inches** Pressure to which they are adjusted **230 lbs.** Is easing gear fitted **No**
 Spare Gear. Has the spare gear required by the rules been supplied **Yes**
 ate: 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,

J. D. Brown Manufacturer.

Dates } During progress of **1943**
 Survey } work in shops - **May 12, 18, 24, 26, 28, 29.**
 while } During erection on **June 2, 4, 7, 8, 9.**
 building } board vessel - **1943 June 15, 22. July 1, 2, 3, 4, 6, 8, 9, 10.** Is the approved plan of boiler forwarded herewith **No**
 Total No. of visits **21** Plans in U.K.

this boiler a duplicate of a previous case **Yes** If so, state vessel's name and report No. **S.S. "FORT COLUMBIA" (Ver. Rpt. No. 5942)**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **These boilers have been built and fitted on**
ward 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
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 **30th Aug. 1943**
 Travelling Expenses (if any) **£15.00** : } When received, **19**

Committee's Minute

Assigned

TUES. 7 DEC 1943

See file machy rpt.

Engineer Surveyor to Lloyd's Register of Shipping.



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