

# REPORT ON WATER TUBE BOILERS.

No. 41039

Date of writing Report **24/3** 19 **41** **REC'D NEW YORK** **DEC 20 1941** Received at London Office  
 When handed in at Local Office **19** Port of **NEW YORK**  
 No. in Survey held at **Carteret, N. J.** Date, First Survey **20/8/40** Last Survey **7-10-1941**  
 Reg. Bk. on the s.s. **"Ceddo"** (Number of Visits **15**) Tons { Gross **9890**  
 Master Built at **Sparrows Point, Md.** by whom built **Bethlehem Steel Co.** (Yard No. **4354**) When built **1941**  
 Engine made at **Essex, Renna** By whom made **Westinghouse E. & M. Co.** When made **1941**  
 Boilers made at **Carteret, N. J.** By whom made **Foster Wheeler Corp. (FWB 451-2)** When made **1941**  
 Registered Horse Power Owners **Socony Vacuum Oil Co.** Port belonging to **New York NY**

**WATER TUBE BOILERS—MAIN, SUMMARY OF DONKEY**—Manufacturers of Steel **Bethlehem Steel Co.**  
 (Letter for Record **S**) Date of Approval of plan **10th July, 1940**  
 of Boilers **2 Foster Wheeler Water Tube** Working Pressure **490 lbs** Tested by Hydraulic Pressure to **980 lb.** Date of Test **25/10 & 12 & 15/11/40**  
 No. of Certificate **Baltimore** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **14960 sq. ft.** **7400** ex Economizers  
 Is forced draught fitted **Yes** Area of fire grate (coal) in each Boiler **Oil fired** Total grate area of boilers in vessel including  
 Main and Auxiliary **No.** and type of burners (oil) in each boiler **No.** and description of safety valves on  
 each boiler **2 Spring loaded** Area of each valve **7.07 sq. in.** Pressure to which they are adjusted **490 lb. 47"**  
 Are they fitted with easing gear **Yes** In case of donkey boilers state whether steam from main boilers can enter the donkey boiler  
 Smallest distance between boilers or uptakes and bunkers or woodwork  
 Steam Drums:—Number in each boiler **One** Inside diameter **48"** Height of Boiler **19'6"** Width and Length **13'0" x 18'0"**  
 Range of Tensile Strength **70,000 lb/in<sup>2</sup> minimum** Material of plates **Steel** Thickness **1-9/16"**  
 Cir. seams **Fusion Weld** long. seams **Fusion Weld** Diameter of rivet holes in long. seams **-** Pitch of Rivets **-**  
 Lap of plate or width of butt straps **1-9/32"** Thickness of straps **-** Percentage strength of long. joint:—Plate **allowed** Rivet **-**  
 Diameter of tube holes in drum **2-1/32"** Pitch of tube holes **Alternate 2" & 2-3/4"** Percentage strength of shell in way of tubes **48.7 & 54.8**  
 If Drum has a flat side state method of staying **No flats** & **4 1/2"** (2" tubes) Depth and thickness of girders at centre  
 (if fitted) **None** Distance apart **-** Number and pitch of stays in each **-** Working pressure  
 by rules **493 lb/in<sup>2</sup>** Steam Drum Heads or Ends:—Material **Steel** Thickness **1-13/32 & 15/16"** Radius or how stayed **Ellipsoidal**  
 Size of Manhole or Handhole **12" x 16"** Water Drums:—Number in each boiler **One** Inside Diameter **32"**  
 Material of plates **Steel** Thickness **1-1/16"** Range of tensile strength **70000 minimum** Are drum shell plates welded  
 or flanged **Fusion Weld** Description of riveting:—Cir. seams **Fusion Weld** long. seams **Fusion Weld** Diameter of Rivet Holes in  
 long. seams **-** Pitch of rivets **-** Lap of plates or width of butt straps **-** Thickness of straps **-**  
 Percentage strength of long. joint:—Plate **-** Rivet **-** Diameter of tube holes in drum **1-9/16" & 2-1/32"** Pitch of tube holes **2 1/2" mean & 4 1/2" mean**  
 Percentage strength of drum shell in way of tubes **48.7 & 54.8** Water Drum Heads or Ends:—Material **Steel** Thickness **1-1/16" & 15/16"**  
 Radius or how stayed **Ellipsoidal** Size of manhole or handhole **12" x 16"** Headers or Sections:—Number **3, 7-3/4" x 7-3/4"**  
 Material **Steel** Thickness **7/8"** Tested by Hydraulic Pressure to **-** Material of Stays **-** Tubes:—Diameter **1 1/2", 2", 3"**  
 Area at smallest part **-** Area supported by each stay **-** Working Pressure by Rules **-** Tubes:—Diameter **1 1/2", 2", 3"**  
 Thickness **11, 9 & 8 BWG resp.** Number **577, 70, 3** Steam Dome or Collector:—Description of Joint to Shell **None**  
 Percentage strength of Joint **-** Diameter **-** Thickness of shell plates **-** Material **-**  
 Description of longitudinal joint **-** Diameter of Rivet Holes **-** Pitch of Rivets **-** Working Pressure of shell  
 by Rules **-** Crown or End Plates:—Material **-** Thickness **-** How stayed **-**

**SUPERHEATER.** Type **Interdeck** Date of Approval of Plan **10th July, 1940** Tested by Hydraulic Pressure to **Integral Superheater**  
 Date of Test **-** Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler **-**  
 Diameter of Safety Valve **-** Pressure to which each is adjusted **-** Is easing gear fitted **-**  
 Is a drain cock or valve fitted at lowest point of superheater **-** Number, diameter, and thickness of tubes **164, 1 1/2", 10 BWG**  
 Spare Gear. Tubes **-** Gaskets or joints:—Manhole **-** Handhole **-** Handhole plates **-**

The foregoing is a correct description,  
**Foster Wheeler Corporation**  
**Manufacturer.**  
**VICE PRESIDENT**

Dates of Survey: During progress of work in shops **Aug. 20, 27, Sept. 13, 17, 24, Oct. 1, 8, 11, 18, 25**  
 while building **Nov. 12, 15, Dec. 23, 1940 & Jan. 7, 1941** Is the approved plan of boiler forwarded herewith **110**  
 During erection on board vessel **Aug. 25, Sept. 7, 8, 16, 18, 26, Oct. 12, 26, Nov. 16, 17, 24** Total No. of visits **29**  
**Aug. 22, 29, Sept. 6, 11, 17, Oct. 7.**

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, etc.) **The Fusion Welded drums for these boilers have been built and tested in accordance with the approved plans, and the Rules for Fusion Welded Pressure Vessels, and the materials and workmanship are good. For particulars of tests see attached test reports. The drums have been forwarded to Sparrows Point, Md. and when these boilers have been completed and fitted on board in accordance with the Rules, to the satisfaction of the Society's surveyors, the vessel will be eligible, in my opinion, to have the notation 2 WT(BSPT) 490 lb.**

Survey Fee ... £ : : } When applied for, **10**  
 Travelling Expenses (if any) £ : : } When received, **10**  
**e. Macpherson**  
 Engineer Surveyor to Lloyd's Register of Shipping.  
 Committee's Minute **NEW YORK DEC 30 1941**  
 signed **du BAL. RPT. 7585**

