

# REPORT ON WATER TUBE BOILERS.

No. 49352

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Report of writing 20th July 49 When handed in at Local Office 20th July 19 49 Port of NEW YORK  
 No. in Survey held at Carteret, N.J. Date, First Survey 9th Feb. Last Survey 14th July 1949  
 Book. on the Bethlehem Sparrows Point Hull No. 4471 S.S. "SAN TOME"  
 By whom built Yard No. When built  
 By whom made Engine No. When made  
 By whom made The Foster Wheeler Corp. Boiler No. When made  
 Owners Port belonging to

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.** Manufacturers of Steel Bethlehem  
 Date of Approval of plan 25th Aug. 1948, New York No. and Description or Type  
 Boilers Drums Two (2) Fusion Welded Working Pressure 675 lb. Tested by Hydraulic Pressure to 1350 lb. Date of Test March 22, 1949  
 of Drums B. 4435-1 Can each boiler be worked separately Total Heating Surface of Boilers  
 of Drums B. 4435-2 forced draught fitted Area of Fire Grate (coal) in each Boiler  
 and type of burners (oil) in each boiler No. and description of safety valves on  
 boiler Area of each set of valves per boiler Pressure to which they  
 adjusted Are they fitted with easing gear 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 Height of boiler  
 Width and length Steam Drums: Number in each boiler One Inside diameter 46-7/8"  
 Thickness of plates Wrapper 1-3/16", Tube 3-7/16" Range of tensile strength 70,000 lb./sq. in. min. Are drum shell plates welded  
 flanged Welded If fusion welded, state name of welding firm The Foster Wheeler Corp. Have all the requirements of the Rules  
 Class I vessels been complied with Yes Description of riveting: Circ. 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 3.026", 1.278" Pitch of tube holes 4.29", 1-7/8"  
 Percentage strength of shell in way of tubes 31.3 Steam Drum Heads or Ends: Range of tensile strength 70,000 lb. min.  
 Thickness of plates 1-3/16" Plain Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Water Drums: Number  
 each boiler One Inside diameter 30.5 Thickness of plates 2-5/16" Range of tensile strength 70,000 lb. min. drum shell plates  
 welded or flanged Welded If fusion welded, state name of welding firm The Foster Wheeler Corp. Have all the requirements of the Rules  
 Class I vessels been complied with Yes Description of riveting: Circ. 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 3.026", 2.028" Pitch of tube holes 3.72", 4.5"  
 Percentage strength of drum shell in way of tubes 31.3 Water Drum Heads or Ends: Range of tensile strength 70,000 lb. min.  
 Thickness of plates 13/16" Plain Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16"  
 Headers or Sections: Number Material Thickness Tested by hydraulic pressure to  
 Tubes: Diameter Thickness Number 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  
 Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes  
 Pitch of rivets Thickness of straps Percentage strength of long. joint plate rivet  
 Crown or End Plates: Range of tensile strength Thickness Radius or how stayed  
**SUPERHEATER, Drums or Headers:** Number in each boiler Inside diameter  
 Thickness Material Range of tensile strength Are drum shell plates welded  
 flanged If fusion welded, state name of welding firm Have all the requirements of the Rules  
 Class I vessels been complied with Description of riveting: Circ. 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 Pitch of tube holes Percentage strength of  
 drum shell in way of tubes Drum Heads or Ends: Thickness Range of tensile strength  
 Radius or how stayed Size of manhole or handhole Number, diameter, and thickness of tubes  
 Tested by hydraulic pressure to Date of test Is a safety valve fitted to each section of the superheater which  
 can be shut off from the boiler No. and description of safety valves Area of each set  
 valves Pressure to which they are adjusted Is easing gear fitted  
**Easing Gear.** Has the spare gear required by the Rules been supplied

The foregoing is a correct description,

A. E. Keating Manufacturer.

During progress of 9th Feb., 22nd March, 26th May, 2nd & Is the approved plan of boiler forwarded herewith No  
 Survey work in shops 20th June, 14th July  
 During erection on board vessel Total No. of visits

This boiler a duplicate of a previous case Yes If so, state vessel's name and report No Bethlehem Hull 4470, N.Yk. 49249/9

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) These fusion welded drums have been made and  
 tested in accordance with the approved plans and Rules for Welded Pressure Vessels, and the workmanship  
 materials are good. These drums have been forwarded to Bethlehem Sparrows Point Yard for instal-  
 tion on Hull No. 4471, and when this has been done in accordance with the Rules and to the satisfaction  
 the Society's Surveyor, the vessel will be eligible in my opinion to receive the notation of  
 2 WTB(SPHT) 675 lbs.

Survey Fee ... £ : When applied for 19.  
 Travelling Expenses (if any) \$8- : When received 19.

Engineer Surveyor to Lloyd's Register of Shipping.

Date NEW YORK MAR 15 1950  
 Committee's See First Entry Report attached.  
 Minute