

## REPORT ON WATER TUBE BOILERS.

No. 48867

DRUMS.

Received at London Office

18 AUG 1948

Date of writing Report Nov. 30th 1948 When landed in at Local Office Dec. 1st 1948 Port of NEW YORK  
 No. in Survey held at Carteret, N.J. Date, First Survey Oct. 25th Last Survey Nov. 23rd 1948  
 Reg. Bk. on the Bethlehem Sparrows Point Hull No. 4467 (Number of Visits 6)  
 Built at Bethlehem Sparrows Point By whom built The Foster Wheeler Corp. When built Nov. 1948  
 Engines made at Carteret, N.J. By whom made The Foster Wheeler Corp. When made Nov. 1948  
 Boilers made at Carteret, N.J. By whom made The Foster Wheeler Corp. When made Nov. 1948  
 Nominal Horse Power - 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 Number and Description or Type of Boilers Drums 2 Fusion Welded Working Pressure 675 lbs Tested by Hydraulic Pressure to 1350 lbs Date of Test 8.13 Nov.  
 No. of Certificate B 4406-1 Can each boiler be worked separately - Total Heating Surface of Boilers -  
 Is forced draught fitted - Area of fire grate (coal) in each Boiler -  
 No. and type of burners (oil) in each boiler - No. and description of safety valves on each boiler -  
 Area of each set of valves per boiler - Pressure to which they are adjusted -  
 Are they fitted with easing gear - 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 - Height of boiler -  
 Width and Length - Steam Drums:—Number in each boiler One Inside diameter 46 7/8"  
 Thickness of plates Wrapper 13/16" Tube 3/16" Range of Tensile Strength 70,000 lbs. psi min. Are 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 for 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 3.026" 1.278" Pitch of tube holes 4.290" 1 7/8" L  
 Percentage strength of shell in way of tubes 31.3 Steam Drum Heads or Ends:—Range of tensile strength 70,000 lbs. psi Min  
 Thickness of plates 1 3/16" Plain Radius or how stayed Ellipsoidal Size of manhole or handhole 12x16 Water Drums:—Number in each boiler One Inside Diameter 30.5 Thickness of plates 2 5/16" Range of tensile strength 70,000 lbs. psi  
 Are 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 for 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 3.026" 2.028" Pitch of tube holes 3.720" 4 1/2" L  
 Percentage strength of drum shell in way of tubes 31.3 Water Drum Heads or Ends:—Range of Tensile strength 70,000 lbs. psi Min.  
 Thickness of plates 1 3/16" Plain Radius or how stayed Ellipsoidal Size of manhole or handhole 12"x16"  
 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 firm -  
 Have all the requirements of 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 or flanged -  
 If fusion welded, state name of welding firm - Have all the requirements of the rules for 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 - 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 of valves -  
 Pressure to which they are adjusted - Is easing gear fitted -

Spare Gear. Has the spare gear required by the rules been supplied -

The foregoing is a correct description,  
 FOSTER WHEELER CORP. H. E. Keating Manufacturer.

Dates of Survey while building } During progress of work in shops - - } 25th Oct. 1st, 5th, 13th, 19th, 23rd, Nov. 1948 Is the approved plan of boiler forwarded herewith No  
 } During erection on board vessel - - - } 6 Total No. of visits

Is this boiler a duplicate of a previous case - If so, state vessel's name and report No. -

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 and materials are good. For particulars of tests please see Rpts attached hereto. These drums have been forwarded to Bethlehem Sparrows Point yard for installation on board Hull No. 4467 and when this has been done in accordance with the Rules and to the satisfaction of the Surveyor the vessel will be eligible in my opinion to receive the notation of 2 WTb (Spht) 675 lbs.

Survey Fee To be collected in Baltimore When applied for, 19  
 Travelling Expenses (if any) \$ 5<sup>00</sup> When received, 19

Committee's Minute

NEW YORK JUL 27 1949

Assigned See First Entry Report BAL. Pg 11 attached

H. E. Keating  
 Engineer Surveyor to Lloyd's Register of Shipping.

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