

# REPORT ON WATER TUBE BOILERS.

N. Y. No. 52406

Received at London Office.

Date of writing Report May 7<sup>th</sup> 1953 When handed in at Local Office 19 Port of New York  
 No. in Survey held at Quincy, Mass. Date, First Survey Feb. 2<sup>nd</sup> 1953 Last Survey May 6<sup>th</sup> 1953  
 Reg. Bk. on the steel screw steamer "ANTROS ISLAND" (Number of Visits COAC 1631) { Gross 18,735.98  
 Tons { Net 11,652  
 Built at Quincy, Mass. By whom built Bethlehem Steel Co. When built 1953  
 Engines made at Quincy, Mass. By whom made Bethlehem Steel Co. When made 1953  
 Boilers made at Carteret, N.J. By whom made Foster Wheeler Corp. When made 1953  
 Nominal Horse Power 3000 Owners Rio Venturado Compania Nav. Port belonging to Panama, R.P.

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Bethlehem Steel Co.

Date of Approval of plan April 13<sup>th</sup> 1951 Number and Description or Type of Boilers Two "II" type oil fired Working Pressure 675 lbs/□ Tested by Hydraulic Pressure to 1013 lbs/□ Date of Test 4/8/53  
 No. of Certificate B.5001 1 & 2 Can each boiler be worked separately Yes Total Heating Surface of Boilers 21,130 sq. ft.  
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler oil fired  
 No. and type of burners (oil) in each boiler Four (Todd Mechanical atomization No. and description of safety valves on each boiler one superheater safety valve } Crosby  
two boiler safety valves Area of each set of valves per boiler { per rule 5.9 sq. ins  
624 lbs/□ superheater as fitted 3.534 sq. ins (each)  
 are adjusted 660 & 675 lbs 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 — Height of boiler 24'-11 1/2"  
 Width and Length 18'-7" x 14'-10 3/8" Steam Drums:—Number in each boiler one Inside diameter 3'-9 3/4"  
 Thickness of plates 3 1/16" bottom, 1 3/16" top Range of Tensile Strength 70,000 lbs Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Foster Wheeler Corporation 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 31.3 Rivet — Diameter of tube holes in drum 2.028" Pitch of tube holes 1.875"  
 Percentage strength of shell in way of tubes 31.3 & 54.7 Steam Drum Heads or Ends:—Range of tensile strength 70,000 lbs  
 Thickness of plates plain 1 3/16" Radius or how stayed Ellipsoidal Size of manhole or handhole 16" x 12" Water Drums:—Number in each boiler one Inside Diameter 2'-6 1/2" Thickness of plates 2 5/16" Range of tensile strength 70,000 Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm 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 2.028" Pitch of tube holes 1.875" & 4.5"  
 Percentage strength of drum shell in way of tubes 31.3 & 54.7 Water Drum Heads or Ends:—Range of Tensile strength 70,000 lbs  
 Thickness of plates plain 1 3/16" man 1 3/16" Radius or how stayed Ellipsoidal Size of manhole or handhole 16" x 12"  
 Headers or Sections:—Number 3 Material Steel ASTM A.106-466LB Thickness 7/16" outside sq, 9/16" wall Tested by Hydraulic Pressure to 1013 lbs/□  
 Tubes:—Diameter 1 1/4", 2" & 3" O.D. Thickness 1 1/4" No. 12 B.W.G Number 1 1/4" 1254, 3"-12 Steam Dome or Collector:—Description of Joint to Shell — Inside diameter 2'-6 B.W.G 3-9 B.W.G Thickness of shell plates 2"-208 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.** Headers:—Number in each boiler Four Inside Diameter 7 3/4"  
 Thickness 1 1/2" Material outlet, alloy steel - U.S.C.G. per 51.34 class B or P-1 certified 55,000 lbs Range of tensile strength — Are drum shell plates welded or flanged seamless Material inlet, carbon steel - U.S.C.G. per 51.34, 1 to 51.34-50 class B' or B' certified 60,000 lbs 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 1.270" Pitch of tube holes 1 1/8", 1 1/4" Percentage strength of drum shell in way of tubes — Drum Heads or Ends:—Thickness — Range of tensile strength 65,000 lbs  
 Radius or how stayed Flat, Welded Size of manhole or handhole 2 3/4" x 3 3/8" Number, diameter, and thickness of tubes 188-1 1/4" O.D.; 120" wall  
 Tested by Hydraulic Pressure to 1013 lbs Date of Test April 8<sup>th</sup> 1953 Is a safety valve fitted to each section of the superheater which can be shut off from the boiler NO No. and description of Safety Valves one - outlet section "Crosby" Area of each set of valves — Pressure to which they are adjusted 624 lbs/□ Is easing gear fitted Yes  
 Spare Gear. Has the spare gear required by the rules been supplied Yes

The foregoing is a correct description,

W. J. Williams Manufacturer.

Dates of Survey } During progress of work in shops -- } CONTINUOUS  
 while building } During erection on board vessel -- }  
 Is the approved plan of boiler forwarded herewith NO  
 Total No. of visits CONTINUOUS

Is this boiler a duplicate of a previous case Yes. If so, state vessel's name and report No. S/S CHRYSSI N.Y. 52229.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have now been satisfactorily installed in accordance with Rules & approved drawings, examined under steam, safety valves adjusted & accumulation tests carried out. The workmanship is good. In my opinion these boilers are eligible to have the notation of 2 W.T.B (Spt) 675 lbs/□

Survey Fee £ : : } When applied for, 19  
 Travelling Expenses (if any) £ : : } When received, 19

Committee's Minute NEW YORK MAY 20 1953  
 Assigned 2 W.T.B. (Spt) 675 lbs. □

W. J. Williams  
 Engineer Surveyor to Lloyd's Register of Shipping.

