

# REPORT ON WATER TUBE BOILERS.

N. Y. K. No. 53551.

Received at London Office.

Date of writing Report Oct. 8<sup>th</sup> 1954 When handed in at Local Office 19 Port of NEW YORK  
 No. in Survey held at Quincy, Massachusetts Date, First Survey June 7<sup>th</sup> Last Survey Oct 8<sup>th</sup> 1954  
 Reg. Bk. on the steel, screw, steamer "Master Peter" (Number of Visits cont.) Tons { Gross 18,763  
 Net 11,609  
 Built at Quincy, Massachusetts By whom built Bethlehem Steel Co. When built 1954  
 Engines made at Quincy, Mass. By whom made Bethlehem Steel Co. When made 1954  
 Boilers made at Carteret, N.J. By whom made Forster, Wheeler Corporation When made 1954  
 Nominal Horse Power 3,000 Owners Bilbao Compania Naviera S.A. Port belonging to Panama, R.P.

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

Date of Approval of plan July 8<sup>th</sup> 1953 Number and Description or Type of Boilers 2 "II" type, oil fired 85236 + 7 Working Pressure 675 lbs Tested by Hydraulic Pressure to 1013 lbs Date of Test

No. of Certificate 85236 + 85237 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

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

Two - boiler safety valves Area of each set of valves per boiler { per rule 2.9 sq. ins as fitted 3.52 sq. ins Pressure to which they are adjusted 660 + 675 lbs / sq. in

Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler No 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 Forster, 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 — Rivet — Diameter of tube holes in drum 1.288" + 2.038" Pitch of tube holes 1.875" + 4.5"

Percentage strength of shell in way of tubes 31.9% + 54.7% Steam Drum Heads or Ends:—Range of tensile strength 70,000 lbs Thickness of plates man. 1 3/16" plain 1 3/16" Radius or how stayed elipsoidal Size of manhole or handhole 16" x 12" Water Drums:—Number in each boiler one Inside Diameter 30 1/2" Thickness of plates 25 1/16" min. Range of tensile strength 70,000 lbs Are drum shell plates welded or flanged Welded If fusion welded, state name of welding firm Forster, 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 1.288" + 2.038" Pitch of tube holes 1.875" + 4.5"

Percentage strength of drum shell in way of tubes 31.9% + 54.7% Water Drum Heads or Ends:—Range of Tensile strength 70,000 lbs Thickness of plates man. 1 3/16" plain 1 3/16" Radius or how stayed elipsoidal Size of manhole or handhole 16" x 12"

Headers or Sections:—Number 3 Material ASTM A. 106-46 Thickness 7/16" outside square Tested by Hydraulic Pressure to 1013 lbs / sq. in Tubes:—Diameter 1 1/4", 2" + 3" O.D. Thickness 3" - 12. B.W.G. 3" - 9. B.W.G. Number 2" - 208 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 Four Inside Diameter 55,000 lbs Thickness 1 1/2" Material outlet - alloy steel - U.S.C.G. par. 34 - class 'B' gr. R.I. certified Range of tensile strength 60,000 lbs Are drum shell plates welded or flanged seamless Inlet - carbon steel - U.S.C.G. par. 51 - 34 - 1 to 51 - 34 - 50 class 'B' grade 'B' cert. 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 1.27" Pitch of tube holes 1 7/8" + 1 1/4" Percentage strength of drum shell in way of tubes — Drum Heads or Ends:—Thickness 7/8" min. Range of tensile strength 65,000 lbs Radius or how stayed — Size of manhole or handhole — Number, diameter, and thickness of tubes 188 - 1 1/4" O.D. .12" wall Tested by Hydraulic Pressure to 1013 lbs / sq. in Date of Test — 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 1.76 sq. ins. Pressure to which they are adjusted 624 lbs / sq. in Is easing gear fitted Yes Spare Gear. Has the spare gear required by the rules been supplied Yes

The foregoing is a correct description,  
*[Signature]* Manufacturer.

Dates of Survey } During progress of work in shops - - } please see report N.Y.K. 52989 attached the approved plan of boiler forwarded herewith No.  
while } During erection on building } continuous Total No. of visits

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These main boilers, now installed satisfactorily in accordance with the rules & approved plans, examined under hydraulic test & working conditions, safety valves adjusted to pressures stated above. The workmanship throughout is satisfactory and in my opinion, these boilers are eligible to have the notation 2 W.T.B. (Spt.) 675 lbs / sq. in

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

Committee's Minute NEW YORK NOV 17 1954  
Signed 2 WTB (Spt) 675 lbs. sq. in

