

## REPORT ON WATER TUBE BOILERS.

No. 52287

DRUMS

Received at London Office

11 SEP 1953

Date of writing Report 4 March 1953 When handed in at Local Office 5 March 1953 Port of NEW YORK  
 No. in Survey held at Carteret, N.J. Date, First Survey 6th November '52 Last Survey 19th February 1953  
 Reg. Bk. on the Bethlehem Steel Co., Quincy, Hull No. 1632 (Number of Visits.....) Tons {Gross.....  
 {Net.....

Built at..... By whom built..... When built.....  
 Engines made at..... By whom made..... When made.....  
 Boilers made at Carteret, N.J. By whom made Foster - Wheeler Corporation When made 1953  
 Nominal Horse Power..... Owners Orion Shipping & Trading Co. Inc. Port belonging to.....

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

Date of Approval of plan June 17, 1952 Number and Description or Type 4 Drums only 2 steam, 2 water  
 of Boilers B5003 Nos. 1 & 2 Working Pressure 675 P.S.I. Tested by Hydraulic Pressure to 1013 P.S.I. Date of Test 28 Nov. '52  
 No. of Certificate B5004 Nos. 1 & 2 Total Heating Surface of Boilers 9,12 & 19 Jan. '53  
 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 {per rule..... Pressure to which they  
 {as fitted.....

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 48"

Thickness of plates 1 3/16" Wrapper 3 7/16" Tube Range of Tensile Strength 70,000 P.S.I. Min. 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..... Rivet..... Diameter of tube holes in drum 3.026" Pitch of tube holes 1.875" 4.5"

Percentage strength of shell in way of tubes 31.3 & 54.7 Steam Drum Heads or Ends:—Range of tensile strength 70,000 P.S.I.

Thickness of plates Plain 1 3/16" Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Water Drums:—Number

in each boiler One Inside Diameter 30 1/2" Thickness of plates 2 5/16" Range of tensile strength 70,000 P.S.I. 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. 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 1.278" 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 P.S.I. Min

Thickness of plates Plain 13/16": Man 1 3/16" 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

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,  
H. E. Keating Manufacturer.

Dates of Survey } During progress of } 6-11-13-20-25 & 28 Nov. 1952 Is the approved plan of boiler forwarded herewith.....  
 while } work in shops - - } 5-7 & 22 Dec. 1952 Total No. of visits 16  
 building } During erection on } 9-12-19-29 & 30 Jan. 1953  
 board vessel - - - } 5 & 19th Feb. 1953

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. Bethlehem Steel, Quincy, Hulls 1630 & 1631

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 & Requirements for Class I Fusion Welding and the

workmanship and materials are good. When the Drums have been installed on board Bethlehem Steel Co.,

Quincy, Mass. Hull No. 1632, according to the Rules, to the satisfaction of the Society's Surveyors,

the vessel will be eligible in my opinion to receive the notation of 2 WT(Spt) 675 P.S.I.

Travelling Expenses (if any) £ 40.00 : } When received, 19

Committee's Minute NEW YORK AUG 26 1953

Assigned See attached 1st entry Rpt.

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
 Foundation

011341-011351-0079