

Rpt. 5c.

# REPORT ON WATER TUBE BOILERS.

No. 31579

Received at London Office

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Date of writing Report 13<sup>th</sup> May 1930 When handed in at Local Office 13<sup>th</sup> May 1930 Port of New York

No. in Survey held at Harborton Ohio & Bayonne N.J. Date, First Survey 3<sup>rd</sup> February Last Survey 8<sup>th</sup> May 1930.  
 Reg. Bk. T.S. Harry F. Sinclair, Jr.  
 On the Bethlehem S. B. Corp. Hull No. 11439. (Sinclair Oil Tanker)  
 Master Built at Quincy, Mass. By whom built Bethlehem S. B. Corp. When built 1930.  
 Engines made at Harborton, Ohio By whom made When made  
 Boilers made at Bayonne, N.J. By whom made The Babcock & Wilcox Co. When made 1930.  
 Registered Horse Power Owners Port belonging to

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.**—Manufacturers of Steel Bethlehem Steel Co.  
 (Letter for Record S.) Date of Approval of plan December 5<sup>th</sup>, 1929. Number and Description or Type of Boilers Three Water Tube Boilers. Working Pressure 400 Tested by Hydraulic Pressure to 600 Date of Test 8<sup>th</sup> May.  
 No. of Certificate Can each boiler be worked separately Total Heating Surface of Boilers  
 Is forced draught fitted Area of fire grate (coal) in each Boiler Total grate area of boilers in vessel including Main and Auxiliary No. and type of burners (oil) in each boiler No. and description of safety valves on each boiler Area of each valve 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 3 Inside diameter 47<sup>3</sup>/<sub>8</sub>" Material of plates Steel Thickness 1<sup>1</sup>/<sub>2</sub>"  
 Range of Tensile Strength 63000 lbs. minimum Are drum shell plates welded or flanged No. Description of riveting:—  
 Cir. seams L.D.R. long. seams D.B.T.R. Diameter of rivet holes in long. seams 1<sup>1</sup>/<sub>2</sub>" Pitch of Rivets 6"  
 Lap of plate or width of butt straps 10<sup>7</sup>/<sub>16</sub>" } Thickness of straps 1<sup>1</sup>/<sub>16</sub>" Percentage strength of long. joint:—Plate 82.8 Rivet 73.8 Combined  
 Diameter of tube holes in drum 4<sup>1</sup>/<sub>2</sub>" Pitch of tube holes 7" Percentage strength of shell in way of tubes 84.8  
 If Drum has a flat side state method of staying Depth and thickness of girders at centre (if fitted) Distance apart Number and pitch of stays in each Working pressure by rules 478.  
**Steam Drum Heads or Ends:**—Material Steel Thickness 1<sup>1</sup>/<sub>16</sub>" Radius or how stayed 47<sup>3</sup>/<sub>8</sub>"  
 Size of Manhole or Handhole 12" x 16" **MUD Water Drums:**—Number in each boiler One Inside Diameter 7<sup>1</sup>/<sub>2</sub>" square  
 Material of plates Steel Thickness 3<sup>3</sup>/<sub>4</sub>" Range of tensile strength 62000 to 72000 Are drum shell plates welded or flanged ✓ Description of riveting:—Cir. seams ✓ long. seams ✓ Diameter of Rivet Holes in long. seams ✓ Pitch of rivets ✓ Lap of plates or width of butt straps ✓ Thickness of straps ✓  
 Percentage strength of long. joint:—Plate ✓ Rivet ✓ Diameter of tube holes in drum 4<sup>1</sup>/<sub>2</sub>" Pitch of tube holes 7"  
 Percentage strength of drum shell in way of tubes ✓ **Water Drum Heads or Ends:**—Material Steel Thickness 3<sup>3</sup>/<sub>4</sub>"  
 Radius or how stayed ✓ Size of manhole or handhole 4<sup>9</sup>/<sub>16</sub>" x 5<sup>1</sup>/<sub>2</sub>" **Headers or Sections:**—Number 17.  
 Material Steel Thickness 3<sup>3</sup>/<sub>4</sub>" Tested by Hydraulic Pressure to 600 lbs. per sq. in. Material of Stays ✓  
 Area at smallest part ✓ Area supported by each stay ✓ Working Pressure by Rules ✓ **Tubes:**—Diameter 4" x 2".  
 Thickness 4<sup>1</sup>/<sub>2</sub>" x 6. 2<sup>1</sup>/<sub>2</sub>" x 10 Number **Steam Dome or Collector:**—Description of Joint to Shell ✓  
 Percentage strength of Joint ✓ Diameter ✓ Thickness of shell plates ✓ Material ✓  
 Description of longitudinal joint ✓ Diameter of Rivet Holes ✓ Pitch of Rivets ✓ Working Pressure of shell by Rules ✓ **Crown or End Plates:**—Material ✓ Thickness ✓ How stayed ✓

**SUPERHEATER.** Type B.W. Date of Approval of Plan Tested by Hydraulic Pressure to 800 lbs. per sq. in.  
 Date of Test 8<sup>th</sup> May. Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler  
 Diameter of Safety Valve 1" Pressure to which each is adjusted 400 lbs. Is easing gear fitted  
 Is a drain cock or valve fitted at lowest point of superheater Number, diameter, and thickness of tubes  
**Spare Gear.** Tubes Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of Feb. 3, 5, 7, 17, March 25, April 29-30, May 8. Is the approved plan of boiler forwarded herewith Yes.  
 while } work in shops - - -  
 building } During erection on } board vessel - - - Total No. of visits

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The above mentioned boilers have been built in accordance with the approved plans. The Workmanship and Material were found to be of good quality.

Total Fee \$225.00  
 Survey Fee New York 162.50, Cleveland 62.50 When applied for, 16 MAY 1930  
 Travelling Expenses (if any) 10.00, Clw 13.30 When received, 27.5. 1930

James D. Peat for Self & G. Drummond  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK MAR 25 1931

Assigned See Bn. Rpt. 2650

Lloyd's Register  
 Foundation

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