

REPORT ON WATER TUBE BOILERS.

No. 7654

Received at London Office 23 JUN 1942

Date of writing Report 16th Apr. 19 42 When handed in at Local Office 16th Apr. 19 42 Port of Baltimore, Maryland

No. in Survey held at Sparrows Point, Md. Date, First Survey 13th Sept. 1940 Last Survey 10th Feb. 19 42

Reg. Bk. on the S.S. "CATAWBA" (Number of Visits 28) Tons { Gross 9930
Net 5907

Built at Sparrows Point, Maryland By whom built Bethlehem Steel Co. When built 1942
(Yard No. 4356)

Engines made at Essington, Pa. By whom made Westinghouse E. & M. Co. When made 1941

Boilers made at Carteret, N. J. By whom made Foster Wheeler Corp. (FW 455-6) When made 1941

Nominal Horse Power 1884 Owners Socony-Vacuum Oil Co. Port belonging to New York, N. Y.

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

Date of Approval of plan 10th July 1940 Number and Description of Type Drum 980 lbs. 1 & 29/11 & 6 & 13/40

of Boilers 2 Foster Wheeler Water Tube Working Pressure 490 lbs. Tested by Hydraulic Pressure to Boiler 735 lbs. Date of Test 23/12/41

No. of Certificate - Can each boiler be worked separately Yes Total Heating Surface of Boilers 7400 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 4 Todd variable capacity No. and description of safety valves on each boiler 2 Spring loaded high lift Area of each set of valve 7.07 sq. in. 14-14 Pressure to which they are adjusted 490 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 -

Smallest distance between boilers or uptakes and bunkers or woodwork Not Near Height of boiler 19'-6" Width and Length 13'0"x18'0"

Steam Drums:—Number in each boiler One Inside diameter 48" Thickness of plates 1-9/16"

Range of Tensile Strength 70,000 lbs./sq.in. minimum Are drum shell plates welded or flanged Fusion Welded Description of riveting:—

Cir. seams Fusion Weld long. seams Fusion Weld Diameter of rivet holes in long. seams - Pitch of rivets -

Lap of plate or width of butt straps - Thickness of straps - Percentage strength of long. joint:—Plate 90% allowed Rivet -

Diameter of tube holes in drum 1-9/32" & 2-1/32" Pitch of tube holes 1-1/4" (2" tubes) Percentage strength of shell in way of tubes 48.7 & 54.8

Working pressure by rules 493 lbs./sq.in. Steam Drum Heads or Ends:—Range of tensile strength - Thickness of plates 1-13/32 & 15/16"

Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Working pressure by rules - Water Drums:—Number in each boiler One Inside Diameter 32" Thickness of plates 1-1/16" Range of tensile strength 70,000 lbs. Min. Are drum shell plates welded or flanged Fusion Weld Description of riveting:—Cir. seams Fusion Weld long. seam Fusion Weld 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 1-9/16" & 2-1/32" Pitch of tube holes 2-1/2" mean. 4-1/2" mean.

Percentage strength of drum shell in way of tubes 48.7 & 54.8 Working pressure by rules - Water Drum Heads or Ends:—Range of Tensile strength - Thickness of plates 1-1/16" & 15/16" Radius or how stayed Ellipsoidal

Size of manhole or handhole 12" x 16" Working pressure by rules - Headers or Sections:—Number 3, 7-3/4" x 7-3/4"

Material Steel Thickness 7/8" Tested by Hydraulic Pressure to 825 lbs. Tubes:—Diameter 1-1/4", 2", 3"

Thickness 11, 9, & 8 BWG resp. Number 577, 70, 3 Steam Dome or Collector:—Description of Joint to Shell None

Inside diameter - Thickness of shell plates - Range of tensile strength -

Description of longitudinal joint - Diameter of rivet holes - Pitch of rivets - Lap of plate or width of butt straps - Thickness of straps - Percentage strength of long. joint - Plate - Rivet -

Working Pressure of shell by rules - Crown or End Plates:—Range of tensile strength - Thickness - Radius or how stayed - Working pressure by rules -

SUPERHEATER. Drums or Headers:—Number in each boiler Interdeck Type Inside Diameter -

Thickness - Material - Range of tensile strength - 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 - Pitch of tube holes -

Percentage strength of drum shell in way of tubes - Working pressure by rules - Drum Heads or Ends:—Thickness - Range of tensile strength - Radius or how stayed - Size of manhole or handhole -

Working pressure by rules - Number, diameter, and thickness of tubes 164, 1-1/4" BWG Tested by Hydraulic Pressure to 735 lbs.

Date of Test 23/12/41 Is a safety valve fitted to each section of the superheater which can be shut off from the boiler Integral superheater

No. and description of Safety Valves 1 Consolidated high lift Area of each set of valves 1.766 sq. in.

Pressure to which they are adjusted 435 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,

Foster Wheeler Corporation Jos. J. Nelis

Manufacturer.

Dates of Survey { During progress of Sept. 13, 20, 24, Oct. 1, 4, 11, 18, 25, Nov. 1, 12, Is the approved plan of boiler forwarded herewith no
work in shops - - 26, 29, Dec. 6, 13, Mar. 14, 18, & 4 April 1941
while building { During erection on Dec. 3, 10, 15, 19, 29, 1941, Jan 2, 8, 15, 16, 26,
board vessel - - - Feb. 10, 1942 Total No. of visits 28

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. Corsicana 7540 Caddo 7585 Calusa 7623

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built and erected under Special Survey (please refer to New York Rpt. No. 41714 with attached electric welding particulars), and in accordance with the Rules and approved plans. The workmanship and material throughout are good. Same have been hydraulically tested in place on board the vessel and subsequently seen under steam working conditions and are eligible in my opinion to be classed and receive the notation 2 WTB (SPT) 490 lbs.

Cleveland \$120.00
Survey Fee ... New York 160.00
Baltimore 120.00
Travelling Expenses (if any) & Cleveland 34.00
N.Y. 24.00
Baltimore 30.25

When applied for, Mar. 20, 19 42
When received, Apr. 24, 19 42

Committee's Minute NEW YORK MAY 27 1942Assigned 2 WTB (SPT) 490 lbs.

Engineer Surveyor to Lloyd's Register of Shipping.

003971-003479-0296