

REPORT ON WATER TUBE BOILERS.

No. 37663

Phl. Rpt. No. 7418

Received at London Office

Date of writing Report 4th June 1937 When handed in at Local Office 24th June 1937 Port of NEW YORK

No. in Survey held at NEW YORK Date, First Survey 2nd April Last Survey 24 JUN 1937
 Reg. Bk. on the Sun Shipbuilding Co. Hull 165 RHODE ISLAND (Number of Visits) Gross 8862 Tons Net 8070
 Master Built at Chester, Pa. By whom built Sun Shipbuilding Co. When built 1937
 Engines made at Chester, Pa. By whom made Sun Shipbuilding Co. When made 1937
 Boilers made at Cartaret, N.J. By whom made Foster Wheeler Corp. (B612/613) When made 1937
 Nominal Horse Power 1197 Owners The Texas Co. Port belonging to Wilmington Del.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Lukens Steel Co. ✓
 (Letter for Record S. ✓) Date of Approval of plan 7 May 1937 Number and Description or Type of Boilers Two Watertube (A Type) ✓ Working Pressure 227 lbs. Tested by Hydraulic Pressure to 454 lbs. Date of Test
 No. of Certificate Can each boiler be worked separately Yes ✓ Total Heating Surface of Boilers 6000 sq. ft. ✓
 Is forced draught fitted Area of fire grate (coal) in each Boiler Oil Fired ✓ Total grate area of boilers in vessel including Main and Auxiliary No. and type of burners (oil) in each boiler 3 Todd ✓ No. and description of safety valves on each boiler 2 Spring Loaded ✓ Area of each valve 7.07 sq. in. Pressure to which they are adjusted 227 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 17'-5-27/32 Width and Length 16'-3-7/8 x 9'-9-3/8
Steam Drums:—Number in each boiler One ✓ Inside diameter 46" ✓ Material of plates Steel ✓ Thickness 27/32" ✓
 Range of Tensile Strength 65/75/000 lbs. ✓ Are drum shell plates welded or flanged Fusion Welded ✓ Description of riveting:—
 Cir. seams Fusion Welded ✓ long. seams Fusion Welded ✓ Diameter of rivet holes in long. seams Pitch of Rivets
 Lap of plate or width of butt straps Butt Joint ✓ Thickness of straps Percentage strength of long. joint:—Plate 90% Allowed ✓ Rivet
 Diameter of tube holes in drum 2-1/32" x 1-17/32" Pitch of tube holes 3-19/32 x 2-23/32 Percentage strength of shell in way of tubes 43.47% ✓
 If Drum has a flat side state method of staying No Flat Side ✓ Depth and thickness of girders at centre (if fitted)
 Distance apart Number and pitch of stays in each Working pressure by rules 230 lbs. ✓
Steam Drum Heads or Ends:—Material Steel ✓ Thickness 13/16 x 3/4 Radius or how stayed 42" R ✓
 Size of Manhole or Handhole 12" x 16" ✓ **Water Drums:**—Number in each boiler Two ✓ Inside Diameter 30" ✓
 Material of plates Steel ✓ Thickness 9/16" ✓ Range of tensile strength 65/75/000 lbs. ✓ Are drum shell plates welded or flanged Fusion Welded ✓ Description of riveting:—Cir. seams Fusion Welded ✓ long. seams Fusion Welded ✓ 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 90% Allowed ✓ Rivet ✓ Diameter of tube holes in drum 2-1/32" x 1-17/32" Pitch of tube holes 3-19/32" x 2-23/32" ✓
 Percentage strength of drum shell in way of tubes 43.47% ✓ **Water Drum Heads or Ends:**—Material Steel ✓ Thickness 19/32" x 15/32" ✓
 Radius or how stayed 30" R ✓ Size of manhole or handhole 12" x 16" ✓ **Headers or Sections:**—Number None ✓
 Material Thickness Tested by Hydraulic Pressure to Material of Stays
 Area at smallest part Area supported by each stay Working Pressure by Rules **Tubes:**—Diameter 2" x 1 1/2" ✓
 Thickness 134" x 109" ✓ Number 66-2", 910-1 1/2" **Steam Dome or Collector:**—Description of Joint to Shell None ✓
 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 None ✓ Date of Approval of Plan 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
 Diameter of Safety Valve Pressure to which each is adjusted 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
 These Drums are designated Steam Drums 612-3 613-3 ✓ The foregoing is a correct description,
 WATER " 612-1 613-1 ✓ Foster Wheeler Corp. Manufacturer.
 612-2 613-2 ✓

Dates of Survey } During progress of work in shops - - - 1937 Apr. 2, 5, 8, 12, 16, 19, 22, 26, 29 May 3, 6, Is the approved plan of boiler forwarded herewith Yes
 while building } During erection on board vessel - - - 10, 14, 18, 20, 22 JUN 10, 24 Total No. of visits 18

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Fusion Welded Drums for these boilers for the above vessel have been built in accordance with the Rules and approved plans and the workmanship and material are good. For particulars of tests please see Special Report attached. The drums have been forwarded to Philadelphia to be erected on board, and when this has been done in accordance with the Rules and to the satisfaction of the Surveyor the boilers will be eligible, in my opinion, to receive the notation 2 W.T.D.B. 227 lbs.

Survey Fee 50% N.Y. £ \$ 300.00 : } When applied for, 7 Jan. 1938 at Phila.
 Travelling Expenses (if any) £ :10.00 : } When received, See Philadelphia 1938

John S. Heck

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JAN 26 1938

Assigned See Phl. Rpt. 7418



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