

REPORT ON WATER TUBE BOILERS.

No. 11353

19 MAY 1958

Received at London Office.

Writing Report Dec. 1957 When handed in at Local Office Mar. 24 19 58 Port of Baltimore, Maryland

Survey held at Sparrows Point Date, First Survey July 18th., 1957 Last Survey Dec. 17th. 19 57

on the S.S. "GULFQUEEN" (Number of Visits 14) Gross 20,466 Tons Net 12,851

Sparrows Point, Maryland By whom built Bethlehem Sparrows Pt. Shipyard, Inc. When built 1957

made at Quincy, Mass. By whom made Bethlehem Steel Company When made 1957

made at Mountaintop, Pa. By whom made FOSTER Forster Wheeler Corp. When made 1957

Horse Power 3000 Owners Black Steamships, Inc. Port belonging to Wilmington, Del.

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

Approval of plan 19th. Sept. 1956 Designed W.P. 700 P.S.I. Number and Description or Type

Boilers Two Forster Wheeler "D" Type. Working Pressure 600 P.S.I. Tested by Hydraulic Pressure to 1100 P.S.I. Date of Test Sept. 13, 57.

Certificate Can each boiler be worked separately Yes. Total Heating Surface of Boilers 18,538 Sq. Ft. 18539

Is draught fitted Yes. Area of fire grate (coal) in each Boiler Oil Fired

Type of burners (oil) in each boiler 3- Todd Hexpress No. and description of safety valves on

Steam Drum, 2 Consolidated High Lift (1.625" Dia.)

Maker MFG Manning Marwell & Moore, Inc. Area of each set of valves per boiler {per rule - as fitted 4.147 Sq. Ins. Pressure to which they

Rated AFT 695 P.S.I. Are they fitted with easing gear Yes. In case of donkey boilers state whether steam from main boilers can enter

Key boiler None Fitted Smallest distance between boilers and bunkers 5 Feet Height of boiler 25 Ft.

Material of shell Length 18' 7" X 13' 7" Steam Drums: Number in each boiler One. Inside diameter 46 15/16"

of plates 3 3/8" Max. 1 1/4" Min. Range of Tensile Strength 70,000 lbs. Are drum shell plates welded

Welded If fusion welded, state name of welding firm Forster Wheeler Corp. Have all the requirements of the rules

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

Plate - Rivet - Diameter of tube holes in drum 2" & 1 1/4" Pitch of tube holes 4 1/2" & 1 7/8"

Percentage strength of shell in way of tubes 31.6 Min. Steam Drum Heads or Ends:—Range of tensile strength 70,000 lbs.

of plates 1 7/8" Radius or how stayed Ellipsoidal Size of manhole or handhole 12" X 16"

boiler One Inside Diameter 31 5/16" Thickness of plates 2 1/4" Max. 7/8" Range of tensile strength 70,000 lbs. Are drum shell plates

or flanged Welded If fusion welded, state name of welding firm Forster Wheeler Corp. Have all the requirements of the rules

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 2" & 1 1/4" Pitch of tube holes 4 1/2" & 1 7/8"

Percentage strength of drum shell in way of tubes 31.6 Min. Water Drum Heads or Ends:—Range of Tensile strength 70,000 lbs.

of plates 1 1/4" Max. & 13/16 Min. Radius or how stayed Ellipsoidal Size of manhole or handhole 12" X 16"

or Sections:—Number 3 Per Boiler Material Seamless Steel Thickness 7/8" Each Boiler Tested by Hydraulic Pressure to 1100 Lbs.

Diameter 2" & 1 1/4" Thickness (.180 Ecom.) .165 & .120 Number 245 @ 2" 819 @ 1 1/4"

Shell - Inside diameter - Thickness of shell plates - Description of longitudinal joint - If fusion welded, state name of welding

Have all the requirements of the rules for Class I vessels been complied with - Diameter of rivet holes -

Percentage strength of long. joint - Plate - Rivet -

or End Plates:—Range of tensile strength - Thickness - Radius or how stayed -

PREHEATER. Drums or Headers:—Number in each boiler Five (5) Inside Diameter 7 3/4" and 7 1/2"

of plates 1 1/2" Material Steel Range of tensile strength 70,000 lbs. Are drum shell plates welded

Welded If fusion welded, state name of welding firm Forster Wheeler Corp. Have all the requirements of the rules

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

Plate - Rivet - Diameter of tube holes in drum 1.275" Pitch of tube holes 1 3/4" Percentage strength of

Shell in way of tubes - Drum Heads or Ends:—Shaped Thickness 1 1/2" Range of tensile strength 70,000 lbs.

or how stayed - Size of manhole or handhole 2 3/4" X 3 3/4" Number, diameter, and thickness of tubes 200 @ 1 1/4" X .120

Tested by Hydraulic Pressure to 1100 lbs. Date of Test Sept. 13th. 1957 Is a safety valve fitted to each section of the superheater which

cut off from the boiler Yes. No. and description of Safety Valves 1 Consolidated High Lift MFG. Manning Marwell & Moore, Inc. (1-312" Dia.)

Area of each set 2.704 Sq. Ins. Pressure to which they are adjusted 630 P.S.I. Is easing gear fitted Yes.

Gear. Has the spare gear required by the rules been supplied Yes.

The foregoing is a correct description,

Manufacturer.

Is the approved plan of boiler forwarded herewith No. Total No. of visits 14

Is a duplicate of a previous case Yes. If so, state vessel's name and report No. S.S. "GULFKING" Rpt. No. 11295

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers, Forster Wheeler Nos. 3981 & 3980 have

constructed & installed to the Society's Rules & approved plans. Please refer to PHL Report No. 10683 Both Boilers

examined in the course of construction, Hydraulically tested & subsequently examined under steam. The materials

workmanship appear good. The Boilers are eligible in our opinion to be fitted to a classed vessel & receive the

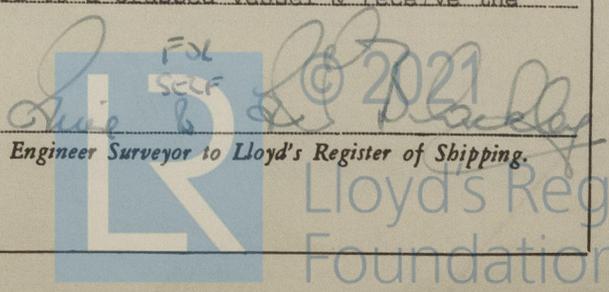
benefit of 2 WT Boilers 700 PSI Sat & 630 PSI Supt. F.D. in the Register Book.

When applied for, 19 When received, 19

When received, 19

Committee's Minute NEW YORK APR 30 1958

MBS. N. 12.57. 2WTB (SP) 6000 Sq. Ins.



Lloyd's Register Foundation

REPORT ON WATER-TUBE BOILERS

Each boiler

$$\begin{array}{r} \text{Generating } \text{ } \text{ } = 4900 \\ \text{Water walls } = 370 \\ \text{Superheater } = 1112 \\ \hline 6382 \end{array}$$

Each economiser = 5775

$$\begin{aligned} \therefore \text{H.S. for RB} &= (6382 \times 2) + 5775 \\ &= 18539 \end{aligned}$$



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