

REPORT ON WATER TUBE BOILERS.

No. 7969

Received at London Office

FEB 17 1941

Date of writing Report 10 Dec 1940 When handed in at Local Office 18 Dec 1940 Port of Philadelphia

No. in Survey held at Sheshv. Pa Date, First Survey 23 Aug Last Survey 7 Nov 1940

Reg. Bk. on the SSMV. AMERICA. SUN (Number of Visits 7) Tons { Gross 10248 Net 6891

Built at Sheshv. Pa By whom built Sum SB & D Co hull 196 When built 1940

Engines made at " By whom made " When made "

Boilers made at Bartlett NJ By whom made Foster Wheeler Corporation (FWB 475) When made "

Nominal Horse Power 1590 Owners Sum Oil Co Port belonging to Philadelphia

WATER TUBE BOILERS OIL FIRED, STAND. BY MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel Bethlehem Steel Co

Date of Approval of plan 8 August 1940 Number and Description or Type of Boilers One, FW Marine Cross Drum W T Working Pressure 245 lbs Tested by Hydraulic Pressure to 368 Date of Test 17-9-40

No. of Certificate 728 Can each boiler be worked separately Yes Total Heating Surface of Boilers 1258 sq

Is forced draught fitted No Area of fire grate (coal) in each Boiler oil fired

No. and type of burners (oil) in each boiler 2 Spring loaded Crosby high lift Area of each set of valve 1.77 sq No. and description of safety valves on each boiler 245 lbs Pressure to which they are adjusted 245 lbs

Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 15' 10" A Height of boiler 11' 9" 7' 0" Width and Length 11' 9" 7' 0"

Steam Drums:—Number in each boiler One Inside diameter 36" Thickness of plates 3/4"

Range of Tensile Strength 6500 minimum Are drum shell plates welded or flanged Union Welded Description of riveting:—

Cir. seams Union Welded long. seams Union Welded Diameter of rivet holes in long. seams " Pitch of rivets "

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

Diameter of tube holes in drum 4 1/32" Pitch of tube holes 7" Percentage strength of shell in way of tubes 112.2

Working pressure by rules Steel Steam Drum Heads or Ends:—Range of tensile strength Steel Thickness of plates 2 3/32" 1 9/32"

Radius or how stayed ellipsoidal Size of manhole or handhole 12" x 16" Working pressure by rules Steel Water Drums:—Number in each boiler 1 Inside Diameter 7 1/4" square Thickness of plates 5/8" Range of tensile strength 6500 lbs min Are drum shell plates welded or flanged Solid drawn Description of riveting:—Cir. seams " long. seam " 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 2 1/32" Pitch of tube holes "

Percentage strength of drum shell in way of tubes " Working pressure by rules " Water Drum Heads or Ends:—Range of Tensile strength " Thickness of plates " Radius or how stayed "

Size of manhole or handhole " Working pressure by rules " Headers or Sections:—Number 18

Material Steel Thickness 5/8" Tested by Hydraulic Pressure to 368 lbs Tubes:—Diameter 2 7/8"

Thickness 1 3/4" 1 1/2" Number 288 79 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 None 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 " 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 Yes

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

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of work in shops - - } 23 & 28 Aug. 17 & 26 Sept 1940 Is the approved plan of boiler forwarded herewith "
while building } During erection on board vessel - - - } Oct 4. 17 Nov 7. 1940 Total No. of visits 7

Is this boiler a duplicate of a previous case No If so, state vessel's name and report No. "

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been satisfactorily installed on board the vessel, the workmanship & materials are good. The boiler has been subjected to a hydraulic test of 368 lbs & found satisfactory. The safety valves have been adjusted under steam to 245 lbs. In my opinion the vessel is eligible to receive the notation of 3 W T D B (1 Spt) 245 lbs.

Survey Fee ... £ : : } When applied for, 4th Jan. 1941
Travelling Expenses (if any) £ : : } When received, 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute N.Y. YORK JAN 8 - 1941

Assigned 1 W T D B (oil fired) - 245 lbs.

