

REPORT ON WATER TUBE BOILERS.

No. 40552

Date of writing Report 22nd Oct 1940. When handed in at Local Office

Received at London Office

FEB 17 1941

Port of New York

No. in Survey held at **NEW YORK** Date, First Survey **5/8** Last Survey **4/10** 1940.
 Reg. Bk. on the **M.V. "AMERICA SUN"** (Number of Visits **4**) Tons { Gross **11,355**
 Net **6891**
 Master Built at **CHESTER, PA.** By whom built **SUN SB & D.D. Co (N^o 196)** When built **1940**
 Engines made at By whom made When made **1940**
 Boilers made at **CARTERET, N.J.** By whom made **FOSTER WHEELER CORP. (W.H.B. 190)** When made **1940**
 Registered Horse Power Owners Port belonging to

WATER TUBE BOILERS **EXHAUST-GAS HEATED** **MANUFACTURED BY** **DONKEY**—Manufacturers of Steel **BETHLEHEM STEEL CO.**
 (Letter for Record **S.**) Date of Approval of plan **8th AUGUST, 1940** Number and Description or Type
 of Boilers **ONE W.T. (WASTE-HEAT) FOSTER WHEELER** Working Pressure **245 LB.** Tested by Hydraulic Pressure to **490 LB.** Date of Test **24-9-40**
 No. of Certificate **NONE ISSUED** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **3150 Sq. Ft.**
 Is forced draught fitted **Yes** Area of fire grate (coal) in each Boiler **Yes** Total grate area of boilers in vessel including
 Main and Auxiliary **Yes** No. and type of burners (oil) in each boiler **NONE** No. and description of safety valves on
 each boiler **2 SPRING LOADED** Area of each valve **1.77 INS²** 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 **NO WOODWORK** Height of Boiler **13' 1" O/A.** Width and Length **8' 6" x 11' 3"**
 Steam Drums:—Number in each boiler **ONE** Inside diameter **36"** Material of plates **STEEL** Thickness **3/4"**
 Range of Tensile Strength **65,000 LB. MINIMUM** 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 **Yes** Pitch of Rivets **Yes**
 Lap of plate or width of butt straps **BUTT WELD** Thickness of straps **Yes** Percentage strength of long. joint:—Plate **90% ALLOWED** Rivet **Yes**
 Diameter of tube holes in drum **2 1/32"** Pitch of tube holes **4 7/8"** Percentage strength of shell in way of tubes **58.3**
 If Drum has a flat side state method of staying **NO FLAT SIDE** Depth and thickness of girders at centre
 (if fitted) **Yes** Distance apart **Yes** Number and pitch of stays in each **Yes** Working pressure
 by rules **311 LB./IN²** Steam Drum Heads or Ends:—Material **STEEL** Thickness **1 1/32" + 2 1/32"** Radius or how stayed **ELLIPTICAL**
 Size of Manhole or Handhole **12" x 16"** Water Drums:—Number in each boiler **Yes** Inside Diameter **Yes**
 Material of plates **Yes** Thickness **Yes** Range of tensile strength **Yes** Are drum shell plates welded
 or flanged **Yes** Description of riveting:—Cir. seams **Yes** long. seams **Yes** Diameter of Rivet Holes in
 long. seams **Yes** Pitch of rivets **Yes** Lap of plates or width of butt straps **Yes** Thickness of straps **Yes**
 Percentage strength of long. joint:—Plate **Yes** Rivet **Yes** Diameter of tube holes in drum **Yes** Pitch of tube holes **Yes**
 Percentage strength of drum shell in way of tubes **Yes** Water Drum Heads or Ends:—Material **Yes** Thickness **Yes**
 Radius or how stayed **Yes** Size of manhole or handhole **WATER DISTRIBUTION** Headers **Yes** Sections:—Number **2 x 6 5/8" O/DIA**
 Material **STEEL** Thickness **1/2"** Tested by Hydraulic Pressure to **368 LB.** Material of Stays **Yes**
 Area at smallest part **Yes** Area supported by each stay **Yes** Working Pressure by Rules **435 LB.** Tubes:—Diameter **2"**
 Thickness **1/48"** Number **140** Steam Dome or Collector:—Description of Joint to Shell **NONE**
 Percentage strength of Joint **Yes** Diameter **Yes** Thickness of shell plates **Yes** Material **Yes**
 Description of longitudinal joint **Yes** Diameter of Rivet Holes **Yes** Pitch of Rivets **Yes** Working Pressure of shell
 by Rules **Yes** Crown or End Plates:—Material **Yes** Thickness **Yes** How stayed **Yes**
SUPERHEATER. Type **NONE** Date of Approval of Plan **Yes** Tested by Hydraulic Pressure to **Yes**
 Date of Test **Yes** Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler **Yes**
 Diameter of Safety Valve **Yes** Pressure to which each is adjusted **Yes** Is easing gear fitted **Yes**
 Is a drain cock or valve fitted at lowest point of superheater **Yes** Number, diameter, and thickness of tubes **Yes**
Spare Gear. Tubes Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,

FOSTER WHEELER CORPORATION

Manufacturer.

Dates of Survey { During progress of work in shops - - 5/8, 23/8, 24/9, 4/10/40
 while building { During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith

Total No. of visits

VICE PRESIDENT

GENERAL REMARKS

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

The Fusion Welded Drum for this boiler has been built & tested in accordance with the approved plan & rules for Fusion Welded Pressure Vessels & the workmanship & material are good. For particulars of tests please see report attached hereto. This drum have been forwarded to Chester, Pa., to be fitted on board & when this has been done in accordance with the Rules & to the satisfaction of the Surveyor, the vessel will be eligible, in our opinion, to receive the notation 3WTD.B. (15PT) 245 LB.

Survey Fee ... £150.00 : : When applied for, 4. JAN. 1941 AT PHIL.

Travelling Expenses (if any) £ 86.00 : : When received, 19

John S. Heck C. Macpherson

Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JAN 8 - 1941

Assigned See attached Report Phil. No. 7969.



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