

# REPORT ON WATER TUBE BOILERS.

No. 40908

Received at London Office **9 JUL 1941**

Date of writing Report 19 When handed in at Local Office 19 Port of **NEW YORK**

No. in Survey held at **NEW YORK** Date, First Survey **20 Dec. 1940** Last Survey **17 Jan. 1941**

Reg. Bk. on the **MS Atlantic Sun** (Number of Visits **4**) Gross Tons Net Tons

Master Built at **Chester, Pa.** By whom built **Sun S.B. & D.D. Co. (No. 212)** When built

Engines made at By whom made When made

Boilers made at **Carteret, N. J.** By whom made **Foster Wheeler Corporation** When made **1941**

Registered Horse Power Owners Port belonging to

**Oil Fired Stand-by**  
**WATER TUBE BOILERS**—~~MAIN, AUXILIARY, OR~~ **DONKEY**.—Manufacturers of Steel **Carnegie Steel Co.**

Letter for Record **S W T** Date of Approval of plan **8th August, 1940** Number and Description or Type of Boilers **1, F.W. Marine Cross-Drum, W.T. Working Pressure 245 lb. Tested by Hydraulic Pressure to 368 lb. Date of Test 10/1/41**

No. of Certificate **none issued** Can each boiler be worked separately **Total Heating Surface of Boilers 1258 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 One** No. and description of safety valves on each boiler **Two Spring Loaded Crosby high life** Area of each valve **1.77 ins. 2** Pressure to which they are adjusted **Release valve 6.41 for 2000 lb. evaporation**

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

Smallest distance between boilers or uptakes and bunkers or woodwork **Height of Boiler 15'1" O/A Width and Length 11'9" x 7'0"**

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

Range of Tensile Strength **65,000 lb/in<sup>2</sup> 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 **Pitch of Rivets**

Lap of plate or width of butt straps **Thickness of straps** Percentage strength of long. joint:—Plate **Rivet**

Diameter of tube holes in drum **4-1/32"** Pitch of tube holes **7"** Percentage strength of shell in way of tubes **42.2**

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 **Steam Drum Heads or Ends:—Material Steel Thickness 23/32" & 19/32" Radius of head Ellipsoidal**

Size of Manhole or Handhole **12" x 16"** **Mud** **Water Drums:—Number in each boiler One Inside Diameter 7 1/4" Square**

Material of plates **Steel** Thickness **5/8"** Range of tensile strength **55,000 lb/in<sup>2</sup>** Are drum shell plates welded or flanged **Solid drawn** 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 **header 2-1/32"** Pitch of tube holes

Percentage strength of drum shell in way of tubes **Water Drum Heads or Ends:—Material Thickness**

Radius or how stayed **Size of manhole or handhole** **Headers or sections:—Number 18**

Material **Steel** Thickness **5/8"** Tested by Hydraulic Pressure to **Material of Stays**

Area at smallest part **Area supported by each stay** Working Pressure by Rules **Tubes:—Diameter 2" & 4"**

Thickness **.134" & .165"** Number **288 & 9** **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**

The foregoing is a correct description,

J. J. Helis

FOSTER WHEELER CORPORATION Manufacturer.  
VICE PRESIDENT

Dates } During progress of } 20th Dec., 7th, 10th & 17th Jan. 1941 } Is the approved plan of boiler forwarded herewith

Survey } work in shops - - }

while } During erection on } Total No. of visits **4**

building } board vessel - - }

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) **The Fusion Welded drum for this boiler has been built and tested in accordance with the approved plan & Rules for Fusion Welded Pressure Vessels the workmanship & materials are good. For particulars of tests please see report attached hereto. This drum has been forwarded to Chester, Pa. to be fitted on board and when this has been done in accordance with the Rules to the satisfaction of the Surveyor, the vessel will be eligible, in my opinion, to receive the notation 3 W.T.D.B. (1SPT) 245 lb.**

Survey Fee ... When applied for, **3-4 May 1941 (at Phila.)**Travelling Expenses (if any) \$ **12.00** : } When received 19

C. Macpherson

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **NEW YORK MAY 28 1941**Assigned **See First Entry Report attached**

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Foundation