

REPORT ON WATER TUBE BOILERS.

No. 40907.

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 13 Dec. 1940 Last Survey 13 JAN. 1941

Reg. Bk. on the MS Atlantic Sun (Number of Visits 4) Tons {Gross Not}

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 W.H.B.204 Port belonging to

WATER TUBE BOILERS—EXHAUST GAS HEATED MAIN/AUXILIARY OR DONKEY.—Manufacturers of Steel Bethlehem Steel Co.

Letter for Record S WT Date of Approval of plan 8th August, 1940 Number and Description or Type 490 lb. Drum

of Boilers 1 W.T. (Waste Heat) Foster Wheeler Working Pressure 245 lb. Tested by Hydraulic Pressure to 368 lb. Boiler Date of Test 21/12/40

No. of Certificate None issued Can each boiler be worked separately. Total Heating Surface of Boilers 3150 sq. ft.

Is forced draught fitted Ex. Gas Area of fire grate (coal) in each Boiler - Total grate area of boilers in vessel including Main and Auxiliary - No. and type of burners (oil) in each boiler None No and description of safety valves on each boiler Two Spring Loaded Crosby high lift Area of each valve 1.77 sq. ins. 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 Motor Ship

Smallest distance between boilers or uptakes and bunkers or woodwork - Height of Boiler 15'1" 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 65000 lb/in² minimum Are drum shell plates welded or flanged Fusion Welded Description of riveting:—

Cir. seams Fusion Weld long. seams Fusion Weld 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 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 of fitted) - Distance apart - Number and pitch of stays in each - Working pressure -

Rules - Steam Drum Heads or Ends:—Material Steel Thickness 19/32", 23/32" Radius or how stayed Ellipsoidal

Size of Manhole or Handhole 12" x 16" Water Drums:—Number in each boiler None Inside Diameter -

Material of plates - Thickness - 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 - Water Drum Heads or Ends:—Material - Thickness -

Radius or how stayed - Size of manhole or handhole Water Distribn Headers or sections:—Number 2 x 6-5/8 O/Dia.

Material Steel Thickness 1/2" Tested by Hydraulic Pressure to 368 lb/in² Material of Stays -

Area at smallest part - Area supported by each stay - Working Pressure by Rules 435 lb/in² Tubes:—Diameter 2"

Thickness .148" Number 140 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 -

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 -

Pressure Gear. Tubes - Gaskets or joints:—Manhole - Handhole - Handhole plates -

The foregoing is a correct description,

Jos. J. Nelson FOSTER WHEELER CORPORATION Manufacturer. VICE PRESIDENT

Dates } During progress of } 13, 19 & 21 Dec., 1940, Jan. 13, 1941 Is the approved plan of boiler forwarded herewith no

Survey } work in shops - - }

while } During erection on }

building } board vessel - - - }

Total No. of visits

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 & 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 & 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. (1 SPT) 245 lb.

Survey Fee ... See this report } When applied for, 3rd May, 1941 (at Clive.)

Travelling Expenses (if any) \$ 12.00 : } When received, 19

E. Macpherson Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK MAY 28 1941

Assigned See first entry Report attached.

