

## REPORT ON WATER TUBE BOILERS.

No. 41039

Date of writing Report 24/3

19 41

REC'D NEW YORK

DEC 20 1941

Received at London Office

When handed in at Local Office

19

Port of NEW YORK

No. in Survey held at Carteret, N. J.

Reg. Bk.

Date, First Survey 20/8/40. Last Survey 7-10-1941

Master Built at Sparrows Point, Md. by whom built Bethlehem Steel Co.

Engine made at *Essex, Renna* By whom made *Westinghouse E & M Co.* (Yard No. 4354)

Boilers made at Carteret, N. J. By whom made Foster Wheeler Corp. (FWB 451-2) When made 1941

Registered Horse Power Owners Socony Vacuum Oil Co.

Port belonging to *Essex, Renna*WATER TUBE BOILERS—MAIN, ~~SUMMARY OF DONKEY~~ Manufacturers of Steel Bethlehem Steel Co.(Letter for Record *S*) Date of Approval of plan 10th July, 1940

of Boilers 2 Foster Wheeler Water Tube

No. of Certificate *Baltimore* To be issued at *Baltimore* Working Pressure 490 lbs Tested by Hydraulic Pressure to *Drum 980 lb.* Date of Test *25/10 & 12 & 15/11/40*Is forced draught fitted Yes Area of fire grate (coal) in each Boiler Oil fired Total Heating Surface of Boilers 14960 sq. ft. *7400 ex Economisers*

Main and Auxiliary No. and type of burners (oil) in each boiler Total grate area of boilers in vessel including

each boiler 2 Spring loaded Area of each grate 7.07 sq. in. No. and description of safety valves on

Are they fitted with easing gear *Yes* 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

Steam Drums:—Number in each boiler One Inside diameter 48" Height of Boiler 19'6" Width and Length 13'0" x 18'0"

Range of Tensile Strength 70,000 lb/in<sup>2</sup> minimum Material of plates Steel Thickness 1-9/16"

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 allowed Rivet

Diameter of tube holes in drum 2-1/32" Pitch of tube holes *Alternate 2 1/4" & 2-3/4"* Percentage strength of shell in way of tubes 48.7 & 54.8

If Drum has a flat side state method of staying No flats &amp; 4 1/2" (2" tubes) Depth and thickness of girders at centre

(if fitted) None Distance apart Number and pitch of stays in each Working pressure

by rules 493 lb/in<sup>2</sup> Steam Drum Heads or Ends:—Material Steel Thickness 1-13/32 & 15/16" Radius or how stayed Ellipsoidal

Size of Manhole or Handhole 12" x 16" Water Drums:—Number in each boiler One Inside Diameter 32"

Material of plates Steel Thickness 1-1/16" Range of tensile strength 70000 minimum Are drum shell plates welded

or flanged Fusion Weld Description of riveting:—Cir. seams Fusion Weld long. seams Fusion Weld 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 1-9/16" &amp; 2-1/32" Pitch of tube holes 2 1/4" mean &amp; 4 1/2" mean

Percentage strength of drum shell in way of tubes 48.7 &amp; 54.8 Water Drum Heads or Ends:—Material Steel Thickness 1-1/16" &amp; 15/16"

Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Headers or Sections:—Number 3, 7-3/4" x 7-3/4"

Material Steel Thickness 7/8" Tested by Hydraulic Pressure to Material of Stays

Area at smallest part Area supported by each stay Working Pressure by Rules Tubes:—Diameter 1 1/4", 2", 3"

Thickness 11, 9 &amp; 8 BWG resp. Number 577, 70, 3 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 Interdeck Date of Approval of Plan 10th July, 1940 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 Integral Superheater

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 164, 1 1/2", 10 BWG

Spare Gear. Tubes Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description.

FOSTER WHEELER CORPORATION

J. J. Reilly Manufacturer.

VICE PRESIDENT

Dates During progress of work in shops:—Aug. 20, 27, Sept. 13, 17, 24, Oct. 1, 8, 11, 18, 25

Survey while building During erection on board vessel:—Nov. 12, 15, Dec. 23, 1940 &amp; Jan. 7, 1941 Is the approved plan of boiler forwarded herewith 110

Total No. of visits 29

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.) The Fusion Welded drums for these boilers have been built and tested in accordance with the approved plans, and the Rules for Fusion Welded Pressure Vessels, and the materials and workmanship are good. For particulars of tests see attached test reports. The drums have been forwarded to Sparrows Point, Md. and when these boilers have been completed and fitted on board in accordance with the Rules, to the satisfaction of the Society's surveyors, the vessel will be eligible, in my opinion, to have the notation 2 WTB(SPT) 490 lb.

Survey Fee ... £ : : When applied for, 10  
 Travelling Expenses (if any) £ : : When received, 10

C. Macpherson

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK DEC 30 1941

Signed *See BAL. RPT. 7585*

© 2020

Lloyd's Register Foundation

006126 006139 0234