

REPORT ON WATER TUBE BOILERS.

No. 41714

Received at London Office

23 JUN 1942

18

Date of writing Report 12/5

1941

When handed in at Local Office

19

Port of

NEW YORK

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

Date, First Survey 13TH SEPTEMBER '40 Last Survey 4TH April 1941.

Reg. Bk.

5/5.

"CATAWBA"

(Number of Visits 17.)

Tons } Gross
Net

Master

Built at Sparrows Point, Md.

By whom built Bethlehem Steel Co.

When built

(Yard No. 4356)

Engines made at

By whom made

When made

Boilers made at

Carteret, N. J.

By whom made

Foster Wheeler Corp. (FWB 455-6)

When made 1941

Registered Horse Power

Owners Socony-Vacuum Oil Co.

Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR 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 Working Pressure 490 lb. Tested by Hydraulic Pressure to 735 lb. Date of Test 12/29/41 & 6/13/40.

No. of Certificate Baltimore

Can each boiler be worked separately Yes

Total Heating Surface of Boiler 7400 sq. ft.

Is forced draught fitted Yes

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

No and description of safety valves on

each boiler 2 Spring loaded

Area of each valve 7.07 sq. in.

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

Height of Boiler 19'6" Width and Length 13'0" x 18'0"

Steam Drums:—Number in each boiler One

Inside diameter 48"

Material of plates Steel

Thickness 1-9/16"

Range of Tensile Strength 70,000 lbs/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

1-9/32"

Thickness of straps

Alternate 2 1/2" & 2-3/4"

Percentage strength of long. joint:—Plate 90% Rivet

Diameter of tube holes in drum 2-1/32"

Pitch of tube holes

1 1/4" tubes

Percentage strength of shell in way of tubes

48.7 & 54.8

If Drum has a flat side state method of staying No flats

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/in²

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" & 2-1/32"

Pitch of tube holes 2 1/4" mean & 2 3/8" mean

Percentage strength of drum shell in way of tubes 48.7 & 54.8

Water Drum Heads or Ends:—Material Steel

Thickness 1-1/16 & 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 15/16" & 5/8" in plan

Area at smallest part

Area supported by each stay

Working Pressure by Rules

Tubes:—Diameter 1 1/4", 2", 3"

Thickness 11, 9 & 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

Integral

Date of Test

Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler

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 1/4", 10 BWG

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 SEPT. 13, 20, 24, OCT. 1, 4, 11, 18, 25, NOV. 1, 12, 26, 29.
while work in shops - - - DEC. 6, 13, MAR 14, 18 & 4 APRIL, 1941.
building } During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith

VICE PRESIDENT

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Fusion Welded drums for these

oilers 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 satis-

faction of the Society's Surveyors, the vessel will be eligible, in my opinion, to have the

notation 2 WTB(SPT) 490 lb.

Survey Fee

See Bal Report

\$160

To Be CHARGED

When applied for, 20-3-1942 at BALTIMORE

Travelling Expenses (if any)

\$824

BALTIMORE

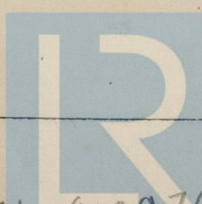
When received, 19

C. Macpherson

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK MAY 27 1942

Assigned See attached First Entry kft.



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