

## REPORT ON WATER TUBE BOILERS.

No. 10746

Received at London Office 10 FEB 1948

Date of writing Report 7.2.1948 When handed in at Local Office 7.2.1948 Port of *Falmouth*  
 No. in Survey held at *Falmouth* Date, First Survey 9-1-48 Last Survey 15-1-1948  
 Reg. Book. (Number of Visits 3) Gross 106.47 Tons Net 63.10  
 22107 on the *S.S. "COTTONWOOD CREEK"*  
 Built at *Mobile, Alabama* By whom built *Alabama D.D. & S.B. Co.* Yard No. When built 1944  
 Engines made at *Lynn, Mass.* By whom made *General Electric Co.* Engine No. When made 1944  
 Boilers made at By whom made *Combustion Engineering Co. Inc.* Boiler No. 3.9561 When made 1944  
 Nominal Horse Power Owners *British Tanker Co. Ltd.* Port belonging to *London*

## WATER TUBE BOILERS MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel BETHLEHEM AND WORTH.

Date of Approval of plan *American Bureau* No. and Description or Type  
 of Boilers *2 Babcock Type W.T. Boilers* Working Pressure *500 lbs/a* Tested by Hydraulic Pressure to *750 lbs/a* Date of Test *5/4/44*

No. of Certificate *✓* Can each boiler be worked separately *Yes* Total Heating Surface of Boilers *9868 sq. ft. (including Superheat)*  
 Is forced draught fitted *Yes* Area of Fire Grate (coal) in each Boiler *✓*

No. and type of burners (oil) in each boiler *4 - Todd's Max. Press.* No. and description of safety valves on

each boiler *Duplex - enclosed direct spring (20 1/2" dia.)* Area of each set of valves per boiler *per rule as fitted 9.81 sq. ft.* Pressure to which they

are adjusted *500 lbs/a* 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 *5'-0"* Height of boiler *21'-0"*

Width and length *11'-10" x 17'-5 1/2"* Steam Drums: Number in each boiler *ONE* Inside diameter *41 1/2" x 42"*

Thickness of plates *3/4" x 1 1/2"* Range of tensile strength *To A.B. Requirements* Are drum shell plates welded

or flanged *Welded* If fusion welded, state name of welding firm *Bethlehem North Co.* Have all the requirements of the Rules

for Class I vessels been complied with *Yes* Description of riveting: Circ. seams *✓* long. seams *✓*

Diameter of rivet holes in long. seams *✓* Pitch of rivets *✓* Thickness of straps *✓* Percentage strength of

long. joint: Plate *✓* Rivet *✓* Diameter of tube holes in drum *4'-0.5"* Pitch of tube holes *7"*

Percentage strength of shell in way of tubes *✓* Steam Drum Heads or Ends: Range of tensile strength *To A.B. Requirements*

Thickness of plates *1 1/2"* Radius or how stayed *Semi-Ellipsoidal* Size of manhole or handhole *16" x 12"* Water Drums: Number

in each boiler *✓* Inside diameter *✓* Thickness of plates *✓* Range of tensile strength *✓* Are drum shell plates

welded or flanged *✓* If fusion welded, state name of welding firm *✓* Have all the requirements of the Rules

for Class I vessels been complied with *✓* Description of riveting: Circ. seams *✓* long. seams *✓*

Diameter of rivet holes in long. seams *✓* Pitch of rivets *✓* 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: Range of tensile strength *✓*

Thickness of plates *✓* Radius or how stayed *✓* Size of manhole or handhole *✓*

Headers or Sections: Number *28 - Main header boxes* Material *Steel* Thickness *3/4"* Tested by hydraulic pressure to *750 lbs/a*

Tubes: Diameter *1 1/2", 2", 4"* Thickness *13 BWG, 10 BWG, 5 BWG* Number *1148, 56, 88* Steam Dome or Collector: Description of

joint to shell *✓* Inside diameter *✓* Thickness of shell plates *✓* Range of tensile

strength *✓* Description of longitudinal joint *✓* If fusion welded, state name of welding

firm *✓* Have all the requirements for the Rules for Class I vessels been complied with *✓* Diameter of rivet holes *✓*

Pitch of rivets *✓* Thickness of straps *✓* Percentage strength of long. joint *✓* plate *✓* rivet *✓*

Crown or End Plates: Range of tensile strength *✓* Thickness *✓* Radius or how stayed *✓*

SUPERHEATER, Drums or Headers: Number in each boiler *Two* Inside diameter *1 1/4" SQUARE*

Thickness *3/4"* Material *Steel* Range of tensile strength *To A.B. Requirements* Are drum shell plates welded

or flanged *✓* If fusion welded, state name of welding firm *✓* Have all the requirements of the Rules

for Class I vessels been complied with *✓* Description of riveting: Circ. seams *✓* long. seams *✓*

Diameter of rivet holes in long. seams *✓* Pitch of rivets *✓* Thickness of straps *✓* Percentage strength of

long. joint: Plate *✓* Rivet *✓* Diameter of tube holes in drum *1 1/2"* Pitch of tube holes *2 3/8"* Percentage strength of

drum shell in way of tubes *✓* Drum Heads or Ends: Thickness *✓* Range of tensile strength *✓*

Radius or how stayed *✓* Size of manhole or handhole *4 1/2" x 3 3/8"* Number, diameter, and thickness of tubes *142 @ 1 1/2" O.D. x 11 BWG*

Tested by hydraulic pressure to *750 lbs/a* Date of test *4/11/44* Is a safety valve fitted to each section of the superheater which

can be shut off from the boiler *✓* No. and description of safety valves *One - 1 1/2" Single High Lift* Area of each set

of valves *1.767 sq. ft.* Pressure to which they are adjusted *46.4 lbs/a* Is easing gear fitted *Yes*

Spare Gear *Has the spare gear required by the Rules been supplied* *Yes*

The foregoing is a correct description,

Manufactured

Dates *During progress of* *✓* Is the approved plan of boiler forwarded herewith *No*  
 of Survey *Work in shops - -*  
 while *During erection on* *✓*  
 building *board vessel - -*

Is this boiler a duplicate of a previous case *Yes* If so, state vessel's name and report No. *T.2 Tankers*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. *These boilers & superheaters have been built under the supervision of the American Bureau of Shipping. The scantlings have been verified as far as practicable. The workmanship is good. For opinions as to class, please see Report 9*

Survey Fee ... £ *✓* When applied for 19  
 Travelling Expenses (if any) £ : : When received 19

TUES. 24 FEB 1948

Date

Committee's Minute

See Rpt. 9

*James Stevenson*  
 Engineer Surveyor to Lloyd's Register of Shipping.

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Lloyd's Register  
 Foundation