

# REPORT ON WATER TUBE BOILERS

Received at London Office 22 SEP 1945

Date of writing Report May 14 19 42 When handed in at Local Office \_\_\_\_\_ 19 \_\_\_\_\_ Port of Cleveland, Ohio

No. in Survey held at Barberton, Ohio Date, First Survey Sept. 23, 1948 Last Survey Nov. 29 19 48

Reg. Bk. \_\_\_\_\_ on the Two (2) Marine "D" Type W.T. Boilers for Hull 569 (Number of Visits 9) {Gross \_\_\_\_\_ Tons }  
 Net \_\_\_\_\_

Built at Chester, Pennsylvania By whom built Sun Shipbuilding & D.D. Co. When built 1948

Engines made at -- By whom made -- When made --

Boilers made at Barberton, Ohio By whom made Babcock and Wilcox Company When made 1948

Nominal Horse Power -- Owners Gulf Oil Company Port belonging to --

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Lukens Steel Company

Date of Approval of plan 9-27-48, 9-29-48, 11-4-48 Number and Description or Type

of Boilers Two (2) Marine 2 Drum "D" Type Working Pressure 965# Tested by Hydraulic Pressure to 1930# Date of Test Nov. 10, 1948

No. of Certificate -- Can each boiler be worked separately Yes Total Heating Surface of Boilers Waterwalls 255 sq. ft.

Is forced draught fitted -- Area of fire grate (coal) in each Boiler --

No. and type of burners (oil) in each boiler -- No. and description of safety valves on

each boiler -- Area of each set of valves per boiler {per rule -- as fitted -- 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 20'-2-3/4"

Width and Length 20'-0" x 15'-11-7/8" Steam Drums:—Number in each boiler One Inside diameter 47-3/8"

Thickness of plates Tube 4-3/8" Range of Tensile Strength 70,000 min. Are drum shell plates welded

or flanged welded If fusion welded, state name of welding firm Babcock and Wilcox Co. Have all the requirements of the rules

for Class I vessels been complied with Yes Description of riveting:—Cir. 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 1.275"-2.025" Pitch of tube holes 1-7/8"-3"-4-3/4"-5"

Percentage strength of shell in way of tubes 32% Steam Drum Heads or Ends:—Range of tensile strength 70,000 min.

Thickness of plates Blankhd. 1-11/16" Radius Wrapper 1-1/16" Size of manhole or handhole 12" x 16" Water Drums:—Number

in each boiler One Inside Diameter 30" Thickness of plates Tube 2-3/4" Range of tensile strength 70,000 min. Are drum shell plates

welded or flanged welded If fusion welded, state name of welding firm Babcock and Wilcox Co. Have all the requirements of the rules

for Class I vessels been complied with Yes Description of riveting:—Cir. seams -- long. seam --

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 70,000 min.

Thickness of plates 1-5/8" - 1-1/16" Radius or how stayed Radius Size of manhole or handhole 12" x 16"

Headers or Sections:—Number (3) Upper R.W. Seamless Material Car. Steel Thickness 1" Tested by Hydraulic Pressure to 1930#

Tubes:—Diameter 2" dia. Thickness .165 Number 63 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 of 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 4 Inside Diameter 8-3/4"

Thickness 1-1/4" Material Carbon Steel Range of tensile strength 60,000# Are drum shell plates welded

or flanged Seamless If fusion welded, state name of welding firm -- Have all the requirements of the rules

for Class I vessels been complied with Yes Description of riveting:—Cir. 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 header 1.275" Pitch of tube holes 1-7/8" Percentage strength of

drum shell in way of tubes 32% Drum Heads or Ends:—Thickness 1-1/4" Range of tensile strength 60,000

Radius or how stayed -- Size of manhole or handhole 3-3/4" x 3-3/8" Number, diameter, and thickness of tubes 182-1-1/4" dia. x .134"

Tested by Hydraulic Pressure to 1930# Date of Test Oct. 20-48 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 -- Area of each set

of valves -- Pressure to which they are adjusted -- Is easing gear fitted --

Spare Gear. Has the spare gear required by the rules been supplied --

Boilers No. 1 & 2 NB 4333

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of } Sept. 23, 27, Oct. 6, 13, 20,  
 while } work in shops - - } Nov. 8, 10, 16, 29, 1948  
 building } During erection on }  
 board vessel - - }

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits \_\_\_\_\_

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. Hull 567 Report Cleveland 1317

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The steam and water drums, water walls, Superheater

and economizer headers were built under Special Survey and in accordance with approved plans. All

boiler parts were hydrostatic tested and welds X-Rayed in accordance with this Society's Rules, and

workmanship found satisfactory throughout. Upon satisfactory installation, in my opinion, the vessel

will be eligible to receive the notation of

2 WTB (SPT) 966#

Survey Fee £ \_\_\_\_\_ When applied for, 19 \_\_\_\_\_

Travelling Expenses (if any) £ 30.00 When received, 19 \_\_\_\_\_

Arranged fee to be charged by Philadelphia Surveyors on completion. \_\_\_\_\_

Committee's Minute \_\_\_\_\_

Assigned See First Entry Report attached

NEW YORK AUG 31 1949

R. S. Haagenen

Engineer Surveyor to Lloyd's Register of Shipping

For W. Charles Clark & Co. S. S. Kelly

Foundation

010355-010361-0238