

REPORT ON WATER TUBE BOILERS.

No. 9270
178 MAY 1949

Received at London Office.

Date of writing Report 13 Apr., 1949 When handed in at Local Office 13 Apr., 1949 Port of PHILADELPHIA, PA.
 No. in Survey held at Chester, Pa. Date, First Survey 8th Oct. Last Survey 7th Nov., 1949
 Reg. Bk. - on the S.S. "KUWAIT" (Number of Visits 21) { Gross -
 Tons { Net -
 Built at Chester, Pa. By whom built Sun S.B. & D.D.Co. When built 1949
 Engines made at - By whom made - When made -
 Boilers made at Barberton, Ohio By whom made Babcock & Wilcox When made 1948
 Nominal Horse Power - Owners Gulf Oil Co. Port belonging to -

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

Date of Approval of plan Sept. 14, 1948

Number and Description or Type of Boilers Two Drum 'D' Type (unassembled) Working Pressure 965# Tested by Hydraulic Pressure to 1448# Date of Test Oct. 18/49

No. of Certificate P802 S803 Can each boiler be worked separately yes Total Heating Surface of Boilers 7882 sq. ft.

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

No. and type of burners (oil) in each boiler Four B. & W. No. and description of safety valves on each boiler 2 - 2" & 1 2" Supt.

Area of each set of valves per boiler { per rule - Pressure to which they are adjusted 965 lbs. Are they fitted with easing gear yes as fitted 3.1416 sq. in.

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 2'-3" Height of boiler 20'-9-1/4"

Width and Length 20'-0" x 15'-11-7/8" Steam Drums:—Number in each boiler one (1) 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 & 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 1.275" - 3.275" Percentage strength of long. joint:—Plate - Rivet - Diameter of tube holes in drum 2.025" - 3.275" Pitch of tube holes 5 7/8" - 3" - 4-3/4"

Percentage strength of shell in way of tubes 90% Rivet 32% Steam Drum Heads or Ends:—Range of tensile strength 70,000 min.

Thickness of plates Manhead 2-9/16" Radius or how stayed Radius 23-11/16" Size of manhole 12" x 16" Water Drums:—Number in each boiler one Inside Diameter 30" Thickness of plates Wrapper 1-1/16" Range of tensile strength 70,000 min. Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Babcock & 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 Manhead 1-5/8" Radius or how stayed Radius 15"-14-5/32" Size of manhole 12" x 16"

Headers or Sections:—Number 3 1-Upper R.W. Seamless Material Carbon steel Thickness 1" Tested by Hydraulic Pressure to 1930#

48 T 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 -

48 T SUPERHEATER. ~~Drums or~~ Headers:—Number in each boiler 4 Inside Diameter 6-3/4"

Thickness 1-1/4" Material Chrome Moly Range of tensile strength 60,000 min. 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 1.275" Pitch of tube holes 1-7/8" Percentage strength of drum shell in way of tubes 32% Drum Heads or Ends:—working pressure 1-1/4" Range of tensile strength 60,000 min.

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" - .134"

Tested by Hydraulic Pressure to 2500# Date of Test Oct. 14, 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 1 - 2" Area of each set of valves - Pressure to which they are adjusted 897 Is easing gear fitted -

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

Boiler No. M.B. 4332

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building } During progress of work in shops -- } Oct. 8, 11, 13, 14, 18, 20, 25, 29 1948 Is the approved plan of boiler forwarded herewith yes
 } During erection on board vessel --- } Feb. 2, 3, 4, 8, 9, 10, 14, 18, 23, 28; Mar. 3, 4, 7, 1949 Total No. of visits 21

Is this boiler a duplicate of a previous case no If so, state vessel's name and report No. -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above boilers have been satisfactorily installed on board the vessel, tested to hydrostatic pressure of 1448 lbs. and found sound and tight. Safety valves adjusted under steam to 965 lbs. on the boilers and 897 lbs. on the spts. In my opinion, the installation is entitled to receive the notation of 2 wtb. 965 lbs. (Spt.)

Survey Fee £ : : When applied for, 9 Apr. 1949
As agreed } per F.A.G.
 Travelling Expenses (if any) £ : : When received, 19

NEW YORK APR 27 1949

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned 2 WTB (SPT) 965 lbs.



Lloyd's Register of Shipping

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