

# REPORT ON WATER TUBE BOILERS.

Received at London Office 6761 J 22

Date of writing Report 24 Aug., 1949. When handed in at Local Office 24th Aug., 1949. Port of PHILADELPHIA, PA.  
 No. in Survey held at Chester, Pa. Date, First Survey 23rd Sept., 1948 Last Survey 23rd June, 1949.  
 Reg. Bk. on the S.S. "EAS AL ARDH" (Number of Visits 25) Gross Tons Net Tons  
 Built at Chester, Pa. By whom built Sun S.B. & D.D.C o. When built 1949  
 Engines made at - By whom made - When made -  
 Boilers made at Barberton, Ohio By whom made Babcock & Wilcox Co. When made -  
 Nominal Horse Power - Owners Kupan Transport Co. Port belonging to -

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

Date of Approval of plan 9-27-48, 9-28-48, 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 May 13, 1949  
 No. of Certificate 807, 808 Can each boiler be worked separately yes Total Heating Surface of Boilers One boiler 3,335 sq. ft. Waterwalls 235 sq. ft.  
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler -  
 No. and type of burners (oil) in each boiler 4 - B. & W. No. and description of safety valves on each boiler 2 - 2" & 1 - 2" Spt. Area of each set of valves per boiler { per rule - as fitted 3.1416 lbs. Pressure to which they are adjusted 965 lbs. Spt. 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 4 ft. Height of boiler 20'-9-3/4"  
 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 & 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" or how stayed Radius Wrapper 1-1/16" 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 & 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 12" x 16"  
 Headers or Sections: Number 1 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 6-3/4"  
 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 - header 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 process 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 MB 4333

The foregoing is a correct description,  
 Manufacturer.

Dates of Survey } During progress of work in shops - - } Sept. 25, 27, Oct. 8, 13, 20  
 while } During erection on board vessel - - } Nov. 8, 10, 16, 29, 1948  
 building } } Mar. 21, 29, Apr. 1, 4, 7, 14, 18, 20, 22, May 3, Total No. of visits 25  
 } } 13, 25, June 7, 9, 13, 23

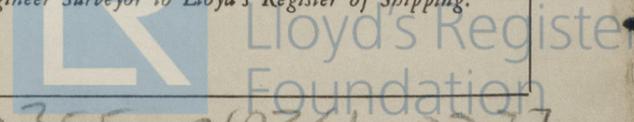
Is this boiler a duplicate of a previous case yes If so, state vessel's name and report No. "KUWAIT" - Sun Hull No. 567 Phil. Rpt. No. 9270

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) The above boilers have been satisfactorily installed on board the vessel, tested to a 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, 18 Jul. 1949  
 Travelling Expenses (if any) £ : : AS Agreed When received, 23 Aug., 1949

Committee's Minute  
 Assigned 2 W.T.B. (SPT) 965 lbs.  
 NEW YORK AUG 31 1949

Engineer Surveyor to Lloyd's Register of Shipping.



010355-010361-0237

Is a Report also sent on...