

# REPORT ON WATER TUBE BOILERS.

No. 7272

MAY 10 1937

Received at London Office

Port of Philadelphia  
 Date of writing Report 14<sup>th</sup> April 1937. When handed in at Local Office 15<sup>th</sup> April 1937. Port of Philadelphia  
 No. in Survey held at Chester Pa Date, First Survey Dec 21<sup>st</sup> Last Survey March 1<sup>st</sup> 1937  
 Reg. Bk. S S MV TEXAS. SUN. (Number of Visits 14) Tons }  
 Master Built at Chester Pa By whom built Sun SB & DD Co When built 1937  
 Engines made at Chester Pa By whom made Sun SB & DD Co When made "  
 Boilers made at " By whom made " When made "  
 Registered Horse Power 5600 Owners Sun Oil Co Port belonging to Philadelphia

**WATER TUBE BOILERS** MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel Lukens Steel Co  
 Letter for Record ( ) Date of Approval of plan Nov 3 1936 Number and Description of Type  
 Boilers 3 air storage tanks Working Pressure 600 Tested by Hydraulic Pressure to 1200 Date of Test (2) Feb 25-27  
 No. of Certificate 693-H 95 Can each boiler be worked separately Total Heating Surface of Boilers 150 cu ft. each  
 forced draught fitted Area of fire grate (coal) in each Boiler 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 tank 1 Spring loaded Area of each valve 7834 Pressure to which they are adjusted 700 lb.  
 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 Width and Length  
 Steam Drums: Number in each boiler 1 Inside diameter 42 Material of plates Steel Thickness 1 3/16  
 Range of Tensile Strength 55000 to 65000 lb. Are drum shell plates welded or flanged Fusion Welded Description of riveting:—  
 Cir. seams Fusion Welded long. seams Fusion Welded Diameter of rivet holes in long. seams Pitch of Rivets  
 Lap of plate or width of butt straps Thickness of straps Percentage strength of long. joint:—Plate 90% Rivet  
 Diameter of tube holes in drum Pitch of tube holes Percentage strength of shell in way of tubes  
 Drum has a flat side state method of staying Depth and thickness of girders at centre  
 (fitted) Distance apart Number and pitch of stays in each Working pressure  
 Rules Steam Drum Heads or Ends:—Material Steel Thickness 1 3/16 Radius or how stayed 30" radius  
 Size of Manhole or Handhole 12" X 16 Water Drums:—Number in each boiler Inside Diameter  
 Material of plates Thickness Range of tensile strength Are drum shell plates welded  
 flanged Description of riveting:—Cir. seams long. seams 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 Pitch of tube holes  
 Percentage strength of drum shell in way of tubes Water Drum Heads or Ends:—Material Thickness  
 Radius or how stayed Size of manhole or handhole Headers or Sections:—Number  
 Material Thickness Tested by Hydraulic Pressure to Material of Stays  
 Area at smallest part Area supported by each stay Working Pressure by Rules Tubes:—Diameter  
 Thickness Number Steam Dome or Collector:—Description of Joint to Shell  
 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  
 Rules Crown or End Plates:—Material Thickness How stayed  
 SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to  
 Date of Test Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler  
 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  
 Spare Gear. Tubes Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,  
 W.M. Conesky  
 SUN SHIPBUILDING & DRY DOCK CO. Manufacturer.

Dates } During progress of work in shops - - } Dec 21, 31, 1936. Jan 26, 28, 29 Feb. 1, 2, 8, 10, 24, 26 March 1, 2, 4, 1937 tanks  
 Survey } While erecting on board vessel - - } March 16 1937. Is the approved plan of boiler forwarded herewith  
 Total No. of visits 14.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) These tanks have been constructed under special survey, and in accordance with the approved plans, the workmanship & materials are good. After the welding was completed, the tanks were stress relieved, see separate report on welding. Tanks were tested by raising the pressure to 900 lb, and beating them with a 7 lb hammer. Pressure was then increased to 1200 lbs & found satisfactory. The tanks have now been satisfactorily installed on board the vessel.

Survey Fee ... \$90.00 : } When applied for, 20<sup>th</sup> April 1937.  
 Travelling Expenses (if any) \$5.00 : } When received, 10.6 1937.  
 1/2-fee for tests for fusion welding \$50.00  
 W.A. Punham  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK APR 28 1937  
 signed See First Entry Rpt. on Oil Eng.