

## REPORT ON WATER TUBE BOILERS.

No. 24195.

Writing Report 16-9-1948 When handed in at Local Office 18-9-1948. Port of SWANSEA  
 Survey held at SWANSEA Date, First Survey 12-7-48. Last Survey 31-8-1948  
 Bk. 51 on the S.S. THALAMUS (Number of Visits 6) Tons Gross 10673 Net 6318  
 at PORTLAND OR. By whom built KAISER C<sup>o</sup> INC. When built 1945  
 made at LYNN MASS. By whom made GENERAL ELECTRIC C<sup>o</sup> When made 1945  
 made at CHATTANOUGA, TENN. By whom made COMBUSTION ENGINEERING C<sup>o</sup> When made 1945  
 CH: NUM: 1486 Owners ANGLO SAXON PETROLEUM C<sup>o</sup> Port belonging to LONDON.

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.**—Manufacturers of Steel BETHLEHEM & WORTH STEEL C<sup>o</sup>  
 of Approval of plan STANDARD FOR T2 TANKERS Number and Description or Type  
 Boilers 2 CROSS DRUM BARKER & WILCOX TYPE Working Pressure 500 LBS Tested by Hydraulic Pressure to 750 LBS Date of Test 3.45  
 of Certificate Can each boiler be worked separately YES Total Heating Surface of Boilers 11354 sq ft  
 forced draught fitted YES Area of fire grate (coal) in each Boiler 4 - FURNACE VOLS 618 CFT EACH  
 and type of burners (oil) in each boiler 4 - TODD "HEXPRESS" No. and description of safety valves on  
 boiler 2 - HIGH LIFT Area of each set of valves per boiler { per rule as fitted 9.81 sq ft Pressure to which they  
 adjusted 500 LBS D Are they fitted with easing gear YES In case of donkey boilers state whether steam from main boilers can enter  
 donkey boiler ✓ Smallest distance between boilers or uptakes and bunkers or woodwork ✓ Height of boiler 21'-0"  
 th and Length 17'-5 1/2" x 11'-10" Steam Drums:—Number in each boiler 1 Inside RADIUS 21'-2 20/32" 64 AT TUBE PLATE  
 thickness of plates 3/4" 2 1 19/32" TUBE PLATE Range of Tensile Strength 70,000 LBS MIN<sup>2</sup> Are drum shell plates welded  
 changed WELDED If fusion welded, state name of welding firm COMBUSTION ENG<sup>g</sup> C<sup>o</sup> Have all the requirements of the rules  
 Class I vessels been complied with AMERICAN BUREAU RULE Description of riveting:—Cir. seams ✓ long. seams ✓  
 diameter of rivet holes in long. seams ✓ Pitch of rivets ✓ Thickness of straps ✓ Percentage strength of  
 joint:—Plate ✓ Rivet ✓ Diameter of tube holes in drum 4" ✓ Pitch of tube holes 7" ✓  
 percentage strength of shell in way of tubes 42.86% Steam Drum Heads or Ends:—Range of tensile strength 65000 LBS MIN<sup>2</sup>  
 thickness of plates 1 1/4" Radius or how stayed SEMI-ELLIPTICAL Size of manhole or handhole 12" x 16" Water Drums:—Number  
 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  
 Class I vessels been complied with ✓ 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 ✓  
 thickness of plates ✓ Radius or how stayed 6' 5 7/8" x 6' 4" x 7/8" Size of manhole or handhole ✓  
 Headers or Sections:—Number 28 6 Material FORGED STEEL Thickness 5/8" 5/8" 5/8" Tested by Hydraulic Pressure to 750 LBS  
 Diameter 1 1/4" Thickness 13.8 W.G. 10.8 W.G. Number 1148 Steam Dome or Collector:—Description of  
 to Shell 2" Inside diameter Thickness of shell plates Range of tensile  
 strength Description of longitudinal joint If fusion welded, state name of welding  
 Have all the requirements of the rules for Class I vessels been complied with ✓ Diameter of rivet holes ✓  
 of rivets ✓ Thickness of straps ✓ Percentage strength of long. joint ✓ Plate ✓ Rivet ✓  
 on or End Plates:—Range of tensile strength ✓ Thickness ✓ Radius or how stayed ✓  
**SUPERHEATER.** Drums or Headers:—Number in each boiler 2 Inside Diameter 5' 3/4" x 5' 3/4"  
 thickness 3/4" 2 1 19/32" TUBE HOLES Material FORGED STEEL Range of tensile strength 60,000 MIN<sup>2</sup> Are drum shell plates welded  
 changed ✓ If fusion welded, state name of welding firm ✓ Have all the requirements of the rules  
 Class I vessels been complied with ✓ Description of riveting:—Cir. seams ✓ long. seams ✓  
 diameter of rivet holes in long. seams ✓ Pitch of rivets ✓ Thickness of straps ✓ Percentage strength of  
 joint:—Plate ✓ Rivet ✓ Diameter of tube holes in drum 1 1/4" ✓ Pitch of tube holes ✓ 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 ✓ Number, diameter, and thickness of tubes 145 L TUBES 1 1/4" 11.8 W.G.  
 tested by Hydraulic Pressure to 750 LBS Date of Test 3.45 Is a safety valve fitted to each section of the superheater which  
 be shut off from the boiler YES No. and description of Safety Valves 1 - HIGH LIFT. Area of each set  
 valves 1.77 sq ft Pressure to which they are adjusted 470 LBS D Is easing gear fitted YES  
 Spare Gear. Has the spare gear required by the rules been supplied YES

The foregoing is a correct description,

Manufacturer.

Dates } During progress of work in shops -- } Is the approved plan of boiler forwarded herewith  
 Survey } During erection on board vessel --- } Total No. of visits

this boiler a duplicate of a previous case YES If so, state vessel's name and report No. T2 - SE - AI TURBO ELECTRIC TANKER.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, etc.) THE BOILERS WERE BUILT UNDER SURVEY  
 THE AMERICAN BUREAU OF SHIPPING AND CLASSED WITH THAT SOCIETY. THE SCANTLINGS HAVE BEEN VERIFIED  
 TYPICAL PLANS OF T2 TANKERS AND SO FAR AS CAN BE SEEN THE MATERIAL AND WORKMANSHIP  
 SATISFACTORY AND BOILERS ELIGIBLE FOR CLASSIFICATION FOR RECOMMENDATIONS AS TO CLASS SEE RPT 9.

Survey Fee ... £ SEE RPT 9 : } When applied for, 10  
 Travelling Expenses (if any) £ SEE RPT 9 : } When received, 10

Committee's Minute See minute on form 9.  
 assigned

Engineer Surveyor to Lloyd's Register of Shipping.