

## REPORT ON WATER TUBE BOILERS.

No.

47606

31 MAR 1947

Received at London Office.

Date of writing Report 1947 When handed in at Local Office 19 Port of NEW YORK  
 Date, First Survey Dec. 19 Last Survey Dec. 28 1946  
 Survey held at NEW YORK  
 Name of vessel S.S. "HADIOTIS" EX "NIKI"  
 (Number of Visits 5)  
 Gross Tons 7240  
 Net Tons 4390  
 When built 1945-1  
 By whom built ST JOHNS RIVER SB Co.  
 When made 1945  
 By whom made GENERAL MACHINE Co.  
 When made 1945  
 By whom made HENRY VOGT MACHINERY Co.  
 When made 1945  
 Owners KASSOS STEAM NAVIGATION Co.  
 Port belonging to SYRA, GREECE  
 Principal Horse Power 648

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel LUKENS, COATESVILLE PA.  
 Date of Approval of plan MAY 20 1941 AMERICAN BUREAU OF SHIPPING  
 Number and Description or Type Boilers TWO WT B&W TYPE Working Pressure 225 lb/sq. in. Tested by Hydraulic Pressure to 500 lb/sq. in. Date of Test  
 Can each boiler be worked separately YES Total Heating Surface of Boilers 10233 sq. ft.  
 Forced draught fitted YES Area of fire grate (coal) in each Boiler OIL FIRED  
 No. and description of safety valves on boiler ONE - 4" TWIN APPROVED HIGH LIFT Area of each set of valves per boiler per rule 16 sq. ins. as fitted 25.13 sq. ins.  
 Pressure to which they are adjusted 250 lb/sq. in. 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 16'-5 5/8"  
 Length and Width 14'-7 3/4" x 17'-4" Steam Drums:—Number in each boiler ONE Inside diameter 47 3/8"  
 Thickness of plates 15/16 Range of Tensile Strength 70,000 TO 82,000 LBS PER SQ. IN. Are drum shell plates welded flanged WELDED If fusion welded, state name of welding firm HENRY VOGT MACHINE Have all the requirements of the rules 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 rivet joint Plate Rivet Diameter of tube holes in drum 4 1/32 Pitch of tube holes 7"  
 Percentage strength of shell in way of tubes 42 Steam Drum Heads or Ends:—Range of tensile strength 65,000 TO 77,000 LB/SQ. IN.  
 Thickness of plates 15/16 Radius or how stayed ELLIPSOIDAL Size of manhole or handhole 12" x 16" Water Drums:—Number in each boiler NONE 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  
 Pitch of rivets Thickness of straps Rivet Diameter of tube holes in drum Pitch of tube holes  
 Water Drum Heads or Ends:—Range of Tensile strength Radius or how stayed Size of manhole or handhole  
 Material OHS Thickness 19/32 Tested by Hydraulic Pressure to 602  
 Number 88 - 602 Steam Dome or Collector:—Description of longitudinal joint Range of tensile strength 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  
 Thickness of straps Percentage strength of long joint Plate Rivet  
 End Plates:—Range of tensile strength Thickness Radius or how stayed  
 Headers:—Number in each boiler 2 ONE UPPER ONE LOWER Inside Diameter 6" x 6" SQUARE  
 Material OHS Range of tensile strength Are drum shell plates welded  
 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 rivet joint Plate Rivet Diameter of tube holes in drum 2 1/4 Pitch of tube holes 3 3/4 Percentage strength of way of tubes 47 Drum Heads or Ends:—Thickness Range of tensile strength  
 Radius or how stayed Size of manhole or handhole Number, diameter, and thickness of tubes 22- 2" DIA x 10 BWG  
 Tested by Hydraulic Pressure to Date of Test Is a safety valve fitted to each section of the superheater which off from the boiler YES No. and description of Safety Valves 10 1/2 Area of each set 1.76 Pressure to which they are adjusted 230 lb/sq. in. Is easing gear fitted YES  
 Has the spare gear required by the rules been supplied YES

The foregoing is a correct description,

Manufacturer.

During progress of work in shops - -  
 During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith

Total No. of visits

Duplicate of a previous case

If so, state vessel's name and report No.

REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers were built under the Special Survey of the Bureau of Shipping. The particulars as shown on this report, were obtained from available information from the Vessel. The scantlings and general arrangement of these boilers, have been verified as practicable. (See Rpt 9 attached herewith for recommendations)

Expenses (if any) £ : : When applied for, 19  
 When received, 19

Minute

NEW YORK MAR 5 - 1947

WTB - 225 lbs.

Engine Surveyor to Lloyd's Register of Shipping.