

REPORT ON WATER TUBE BOILERS.

Received at London Office 6 MAY 1950

Date of writing Report 10th Apr. 1950 When handed in at Local Office 10 April, 1950. Port of PHILADELPHIA, PA.
 No. in Survey held at Chester, Pa. Date, First Survey 16th Jan., Last Survey 23rd March, 1950
 Reg. Bk. on the S.S. "SOVAC RADIANT" - Sun Hull No. 576 (Number of Visits five) Gross 17597.94 Tons Net -
 Built at Chester, Pa. By whom built Sun S.B. & D.D. Co. When built 1949-50
 Engines made at Trenton, N.J. By whom made De Laval Steam Turbine Co. When made "
 Boilers made at Barberton, Ohio By whom made Babcock & Wilcox Co. When made 1949
 Nominal Horse Power 3096 Owners Tankers Navigation Co. Port belonging to Panama

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

Date of Approval of plan 12-28-48 and 2-1-49 Uptake Number and Description or Type
 Boilers 2 B & W Marine 2 Drum Single Working Pressure 685# Tested by Hydraulic Pressure to 1378 Date of Test 22.9.49
 of Certificate P.821 Can each boiler be worked separately Yes Total Heating Surface of Boilers 2040 sq. ft. economizer
 forced draught fitted - Area of fire grate (coal) in each Boiler - 7390 " " " boiler
 and type of burners (oil) in each boiler Iowa Straight Mechanical (4 per boiler) No. and description of safety valves on

Each boiler 2-2" each blr. 1 - 1 1/2" ea. superhtr. Area of each set of valves per boiler { per rule -
 685# blrs. ✓ Are they fitted with easing gear yes ✓ In case of donkey boilers state whether steam from main boilers can enter
 adjusted 627# superhtrs. ✓ Smallest distance between boilers or uptakes and bunkers or woodwork 4 Ft; Height of boiler 22'6"

Manufacturer donkey boiler - Width and Length 17'2" Steam Drums:—Number in each boiler One Inside diameter 46-27/32"
 Thickness of plates Tube 3-3/4" Range of Tensile Strength 70,000 p.s.i. min. Are drum shell plates welded
 flanged Welded If fusion welded, state name of welding firm Babcock & Wilcox Co. Have all the requirements of the rules
 Class I vessels been complied with Yes Description of riveting:—Cir. seams No riveting 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 1-1/4"-2"- Pitch of tube holes 1.75"
 Percentage strength of shell in way of tubes 27.14% Steam Drum Heads or Ends:—Range of tensile strength 70,000 p.s.i. min.
 Thickness of plates 1-13/16" Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Water Drums:—Number
 each boiler one Inside Diameter 29-5/8" Thickness of plates Tube 2-1/2" 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
 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 1-1/4"-2"- Pitch of tube holes 1.75"
 Percentage strength of drum shell in way of tubes 27.14% Water Drum Heads or Ends:—Range of Tensile strength 70,000 min.
 Thickness of plates Manhead 1-3/16" Blank 1" Seamless O.H. Radius or how stayed Ellipsoidal Size of manhole or handhole 12 x 16
 Headers or Sections Number 2 Rear Side Material Carbon Steel Thickness .875" Tested by Hydraulic Pressure to 1370"
 Tubes:—Diameter Generating 2" Waterwall 2" Thickness 8 BWG Number 1422 Steam Dome or Collector:—Description of

joint to Shell None 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 Yes 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 3 Inside Diameter 5-1/4" square

Thickness 1" Material Chrome Moly Range of tensile strength 70,000 min. Are drum shell plates welded
 flanged Seamless If fusion welded, state name of welding firm - 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
 long. joint:—Plate - Rivet - Diameter of tube holes in drum - Pitch of tube holes - Percentage strength of
 drum shell in way of tubes .310" Drum Heads or Ends:—Thickness - Range of tensile strength 70,000 min.
 Radius or how stayed - Size of manhole or handhole 3-3/4" x 3-3/8" Number, diameter, and thickness of tubes 148-1-1/4" x .135"
 Tested by Hydraulic Pressure to 1370 Date of Test 29-9-49 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
 valves - Pressure to which they are adjusted - Is easing gear fitted -

Easing Gear. Has the spare gear required by the rules been supplied -

The foregoing is a correct description,

Boilers MB-4344 No.1 & 2

Manufacturer.

Dates } During progress of } July 13, Sept. 2, 8, 16, 22, Oct. 4, 7, 21 1949 Is the approved plan of boiler forwarded herewith. No.
 Survey } work in shops - -
 while } During erection on } 16 & 20 Jan., 10 & 23 Feb., 23 March, Total No. of visits 13
 building } board vessel - - - } 1940

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. Sun Hulls 570-576

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above boilers have been satisfactorily
 installed on board the vessel, tested by hydraulic pressure to 1078 lbs. and found in good order.
 The safety valves have been adjusted under steam to 685 lbs. on the boilers and 627 on the super-
 heaters. It is recommended that these boilers receive the record of 2 WTB 685 lbs. (Spt.)

Survey Fee £ 110.00 : } When applied for, 10th Apr. 1950
 Travelling Expenses (if any) £ 20.00 : } per F.A.G.
 Cleveland A/c 290.00 } When received, 19

NEW YORK APR 19 1950

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned 2 WTB (Spt) 685 lbs.

