

REPORT ON WATER TUBE BOILERS.

No. 9384

30 JAN 1950

Received at London Office

Date of writing Report 6th Dec. 1949 When handed in at Local Office 6th Dec. 1949 Port of PHILADELPHIA, PA.
No. in Survey held at Chester, Pa. Date, First Survey 11th August Last Survey 14th Nov. 1949
Reg. Bk. on the S.S. "SOVAC ASTRAL" - Sun Hull No. 572 (Number of Visits eight.) Gross 17597.94 Tons
Net -
Built at Chester, Pa. By whom built Sun S.B. & D.D. Co. When built 1949
Engines made at Wellsville, N. Y. By whom made Worthington Pump & Mach'y Co. When made 1942
Boilers made at Baberton, Ohio By whom made Babcock & Wilcox Co. When made 1949
Nominal Horse Power 3096 Owners Tankers Navigation Company Port belonging to Panama

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

Date of Approval of plan Dec. 28, 1948 and Feb. 1, 1949 Number and Description or Type
of Boilers Two Marine Single Uptake Working Pressure 685 psi Tested by Hydraulic Pressure to 1370 Date of Test Oct. 17, 1949
No. of Certificate P-813, 814-S Can each boiler be worked separately Yes Total Heating Surface of Boilers 2040 sq. ft. Superheater
Is forced draught fitted - Area of fire grate (coal) in each Boiler - 7390 Each Boiler
No. and type of burners (oil) in each boiler 4 per Boiler, Straight Mechanical Iowa Type No. and description of safety valves on
each boiler - Area of each set of valves per boiler { per rule - Pressure to which they
as fitted -
are adjusted - 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 22'-6"
Width and Length 17' - 2" Steam Drums:—Number in each boiler One Inside diameter 46 27/32" average
Thickness of plates Wrapper 1 3/16" - Tube 3 3/4" Range of Tensile Strength 70,000 psi Min. Are drum shell plates welded
or flanged Welded If fusion welded, state name of welding firm Babcock and 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 1 1/4" - 3 1/4" Percentage strength of
long. joint:—Plate - Rivet - Diameter of tube holes in drum 1 1/4" - 2" - 3" 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 psi min.
Thickness of plates 1 13/16" Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Water Drums:—Number
in each boiler One Inside Diameter 29 5/8" Thickness of plates Tube 2 1/2" Range of tensile strength 70,000 psi min. Are drum shell plates
welded or flanged Welded If fusion welded, state name of welding firm Babcock and 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 1 1/4" - 2" - 3" 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 psi min.
Thickness of plates Manhead 1 3/16" Blank - Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16"
Headers or Sections:—Number 2 Rear CH Seamless Material Carbon Moly Thickness .875 Tested by Hydraulic Pressure to 1370 psi
Tubes:—Diameter Waterwall 2" - 1 1/4" Thickness 1 1/4" - 3 1/4" Number 71 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 - 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 Headers 3 Inside Diameter 5 1/4" square
Thickness 1.00" Material carbon steel Range of tensile strength 70,000 psi min. Are drum shell plates welded
or flanged Headers are 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 - Thickness of straps - Percentage strength of
long. joint:—Plate - Rivet - Diameter of tube holes in drum 1 1/4" - 2" - 3" Pitch of tube holes 1 1/4" Percentage strength of
drum shell in way of tubes .310% Drum Heads or Ends:—Thickness - Range of tensile strength 70,000 psi
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 - Date of Test - 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. MB 4340 Nos. 1 and 2

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of } Jan. 14, 28, Feb. 3, 16, 22, Mar. 1, 8, 21, 28, April 15, 1949
while } work in shops - - - } Is the approved plan of boiler forwarded herewith No
building } During erection on } Aug. 11, Sept. 22-26, 28, Oct. 4, 5, 17, & Nov. 14, 1949
board vessel - - - } Total No. of visits 18

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. S.S. "SOVAC PEGASUS" - Sun Hull #570
Phl. Rpt. 9341

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 2 WTB 685 lbs. (SPT).

Survey Fee £ 110.00 : } When applied for, 1st Dec. 1949
Travelling Expenses (if any) £ 20.00 : } per F.A.G.
Cleveland A/C 290.00 : } When received, 19

Committee's Minute

Assigned 2 WTB (Spt.) 685 lbs □

NEW YORK JAN 4 - 1950

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register
Foundation

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