

REPORT ON WATER TUBE BOILERS.

No. 1380

30 JAN 1950

Received at London Office.

Port of Cleveland, Ohio

19. When handed in at Local Office. 19. Date, First Survey Jan. 14 Last Survey April 15 1949
No. in Survey held at Barberton, Ohio (Number of Visits 10) Gross Tons -
Reg. Bk. on the Tanker - Hull 572 - Two Main W.T. Boilers Net Tons -
Built at Chester, Pennsylvania By whom built Sun Shipbuilding & Dry Dock Co. When built 1949
Engines made at - By whom made - When made -
Boilers made at Barberton, Ohio By whom made Babcock and Wilcox Co. When made 1949
Nominal Horse Power - Owners - Port belonging to -

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Worth Steel Co.
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 930 sq. ft. Superheater
Two Drum Type Can each boiler be worked separately Yes Total Heating Surface of Boilers 2040 sq. ft. Economizer
No. of Certificate 7390 Each Boiler

forced draught fitted - Area of fire grate (coal) in each Boiler - No. and description of safety valves on
No. and type of burners (oil) in each boiler 4 per Boiler, Straight Mechanical Iowa Type
each boiler - Area of each set of valves per boiler {per rule - Pressure to which they
as fitted -
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"
Thickness of plates Wrapper 1 3/16" - Tube 3 3/4" Range of Tensile Strength 70,000 psi Min. Are drum shell plates welded
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" Percentage strength of
long. joint:—Plate - Rivet - Diameter of tube holes in drum 1 1/4"-2"-3 1/4" Pitch of tube holes 1.75"
Percentage strength of shell in way of tubes .2714% Steam Drum Heads or Ends:—Range of tensile strength 70,000 psi min.
Thickness of plates 1 13/16" Radius or how stayed 6" Size of manhole or handhole 12" x 16" Water Drums:—Number
in each boiler One Inside Diameter 29 5/8" Thickness of plates Tubes 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 1 1/4" Pitch of tube holes 1.75"
Percentage strength of long. joint:—Plate - Rivet - Diameter of tube holes in drum 1 1/4"-2"-3 1/4" Pitch of tube holes 1.75"
Percentage strength of drum shell in way of tubes .2714% Water Drum Heads or Ends:—Range of Tensile strength 70,000 psi min.
Thickness of plates Manhead 1 3/16" Blankhead 1" Radius 3 3/4" Size of manhole or handhole 12" x 16"
Headers 2 Rear 2 Side 2 Material Carbon Moly Thickness .875 Tested by Hydraulic Pressure to 1370 psi
Tubes:—Diameter Generating 1 1/4" 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 - 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 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 - 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 psi
Radius or how stayed - Size of manhole or handhole 3 3/4"x3 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

The foregoing is a correct description,

Boilers No. MB 4340 Nos. 1 and 2

Manufacturer.

28, April 15, 1949
Is the approved plan of boiler forwarded herewith No
Dates of Survey } During progress of } Jan. 14, 28, Feb. 3, 16, 22, Mar. 1, 8, 21, Total No. of visits
while } work in shops - - -
building } During erection on }
board vessel - - -

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler components consisting of steam and water
drums, superheater, waterwall and economizer headers were built in accordance with approved plans
and under Special Survey during construction by Surveyors to this Society. The workmanship and
material is of satisfactory quality throughout and it is recommended that the Boilers become part of
the machinery of a vessel classed with this Society with the notation in the Register of 2WTB-685psi SPT.
Survey Fee - When applied for, -

Travelling Expenses (if any) \$ 65 00 : When received, 19
Arranged fee to be charged by Philadelphia Surveyors.

Committee's Minute

Assigned See Pkl. Rpt. 9384 attached

U. A. Johnson
Acting Surveyor to Lloyd's Register
Engineer Surveyor to Lloyd's Register of Shipping.

010526-010536-0363

Lloyd's Register