

REPORT ON WATER TUBE BOILERS.

No. 1380

30 JAN 1950

Received at London Office

Port of Cleveland, Ohio

Date of writing Report 19... When handed in at Local Office 19...
 No. in Survey held at Barberton, Ohio Date, First Survey Jan. 14 Last Survey April 15 1949
 Reg. Bk. on the Tanker - Hull 572 - Two Main W.T. Boilers (Number of Visits 10) Gross Tons - 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 Two Marine Single Uptake

Working Pressure 685 psi Tested by Hydraulic Pressure to 1370 Date of Test 930 sq.ft. Superheater
 No. of Certificate Two Drum Type 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 - No. and description of safety valves on 7390 Each Boiler

No. and type of burners (oil) in each boiler 4 per Boiler, Straight Mechanical Iowa Type

Area of each set of valves per boiler - Pressure to which they are adjusted -

Are they fitted with easing gear - In case of donkey boilers state whether steam from main boilers can enter -

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 -

Drum 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 1/4" 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 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 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 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 or Sections:—Number 2 Rear Material Carbon Moly Thickness .875 Tested by Hydraulic Pressure to 1370 psi

Tubes:—Diameter Generating 1 1/4" Waterwall 2" Thickness 11 BWG. 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 -

Inside Diameter 5 1/4" square

SUPERHEATER. Drums or Headers:—Number in each boiler Headers 3. Are drum shell plates welded -

Thickness 1.00" Material carbon steel Range of tensile strength 70,000 psi min. Have all the requirements of the rules -

or flanged Headers are seamless fusion welded, state name of welding firm - long. seams -

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" 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 - The foregoing is a correct description, -

Boilers No. MB 4340 Nos. 1 and 2 Manufacturer. -

Is the approved plan of boiler forwarded herewith No 28, April 15, 1949

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, - When received, 19

Travelling Expenses (if any) \$ 65 00 Arranged fee to be charged by Philadelphia Surveyors. -

Committee's Minute - Assigned See Pkl. Rpt. 9384 attached

NEW YORK JAN 4 - 1950 J.G.G. Acting Surveyor to Lloyd's Register Engineer Surveyor to Lloyd's Register of Shipping. Lloyd's Register 010526-010536-0363