

# REPORT ON WATER TUBE BOILERS.

No. 8120

Received at London Office

4 NOV 1941

Port of writing Report 2 Sept 1941 When handed in at Local Office 6 Sept 1941 Port of Philadelphia  
 No. in Survey held at Barberton Ohio & Chester Pa Date, First Survey Feb 11 Last Survey 5 Aug 1941  
 Reg. Bk. on the 515 STANVAC WELLINGTON (Number of Visits 14) Tons { Gross 10013 Net 6397  
 Master Built at Chester Pa By whom built Sam FB & DD Co When built 1941  
 Engines made at Essington Pa By whom made Westinghouse & M. Co When made 1941  
 Boilers made at Barberton Ohio By whom made Barcock & Wilson Co When made 1941  
 Registered Horse Power Owners Petroleum Shipping Co Port belonging to Panama

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.**—Manufacturers of Steel Bethlehem Steel Co  
 Letter for Record ) Date of Approval of plan October 1940 Number and Description of Type 2 Water tube Single drum type  
 of Boilers 2 Working Pressure 475 Tested by Hydraulic Pressure to 713 Date of Test 22 May 1941  
 No. of Certificate 733 Can each boiler be worked separately Yes Total Heating Surface of Boilers 9008  
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler 3 Total grate area of boilers in vessel including Main and Auxiliary 3  
 No. and type of burners (oil) in each boiler 3 No and description of safety valves on each boiler 2 Spring loaded Area of each valve 4.909" Pressure to which they are adjusted 475 lb.  
 Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 36" Height of Boiler 20' 11" Width and Length 9' 10" x 13' 11"  
**Steam Drums:**—Number in each boiler 1 Inside diameter 42 1/16" Material of plates Steel Thickness 3/4" 1 1/32"  
 Range of Tensile Strength 70000 to 82000 lb Are drum shell plates welded or flanged Fusion Welded Description of riveting:—  
 Cir. seams long. seams Diameter of rivet holes in long. seams Pitch of Rivets  
 Lap of plate or width of butt straps Thickness of straps Percentage strength of long. joint:—Plate 90% Rivet Yes  
 Diameter of tube holes in drum 4 1/32" Pitch of tube holes 7" Percentage strength of shell in way of tubes 42.41  
 If Drum has a flat side state method of staying None Depth and thickness of girders at centre (if fitted) Distance apart Number and pitch of stays in each Working pressure  
 by rules Steam Drum Heads or Ends:—Material Steel Thickness 1 7/32" Radius or how stayed 33 3/8"  
 Size of Manhole or Handhole 12' x 16" **Water Drums:**—Number in each boiler Inside Diameter  
 Material of plates Thickness Range of tensile strength Are drum shell plates welded  
 or flanged Description of riveting:—Cir. seams long. seams Diameter of Rivet Holes in  
long. seams Pitch of rivets Lap of plates or width of butt straps 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 Water Drum Heads or Ends:—Material Thickness  
 Radius or how stayed Size of manhole or handhole **Headers or Sections:**—Number 13  
 Material Steel Thickness 1 9/32" Tested by Hydraulic Pressure to 713 lb Material of Stays Yes  
 Area at smallest part Area supported by each stay Working Pressure by Rules Tubes:—Diameter  
 Thickness 0.95" & 1.34" Number 1064-1144 51-2 **Steam Dome or Collector:**—Description of Joint to Shell  
 Percentage strength of Joint Diameter Thickness of shell plates Material  
 Description of longitudinal joint Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell  
 by Rules Crown or End Plates:—Material Thickness How stayed  
**UPERHEATER.** Type B & W Date of Approval of Plan Oct 1940 Tested by Hydraulic Pressure to 713 lb  
 Date of Test March 1941 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes  
 Diameter of Safety Valve Pressure to which each is adjusted 450 lb Is easing gear fitted Yes  
 Is a drain cock or valve fitted at lowest point of superheater Yes Number, diameter, and thickness of tubes 192-114" 120"  
**Spare Gear.** Tubes 5 Gaskets or joints:—Manhole Handhole 10 Handhole plates 10

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of Feb 11-17-27, March 4-5-6-11-20-26 1941 Is the approved plan of boiler forwarded herewith Yes  
 while } During erection on June 20, July 2-31, Aug 5 Total No. of visits 14  
 building } board vessel - - -

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) These boilers have been satisfactorily installed on board the vessel, tested by hydrostatic pressure to 713 lbs & found sound & tight at that pressure. The safety valves have been adjusted under steam to 475 lbs & 450 on superheaters. In my opinion the installation is entitled to receive the Record of 2 WTB 475 lbs.

Survey Fee 117.00 When applied for, 18th Sept. 1941  
 Travelling Expenses (if any) 5.00 When received, 19  
 Installation 50.00

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK OCT 1941

Assigned 2 W.T.B. (Cht) 475 lbs.