

REPORT ON WATER TUBE BOILERS.

MOE 67 14 1919

Received at London Office

Writing Report 30th Sept 1919 When handed in at Local Office 191 Port of Buffalo N.Y.
 Survey held at Buffalo N.Y. Date, First Survey July 9th 1919 Last Survey Sept 17th 1919
 Bk. on the Steel Screw Steamer "Nemaha" Number of Visits 23 Gross 6527 Tons
J. S. Lynch Built at Wilmington N.C. By whom built George A. Fuller & Co When built 1920
 Made at Buffalo N.Y. By whom made The O'Neil Iron Works When made 1920
 Made at Buffalo N.Y. By whom made Barber Asphalt Paving Co When made 9-19
 Horse Power 590 Owners Carolina Shipbuilding Co Port belonging to Wilmington N.C.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Midvale Steel Co Phila. Pa
 Number for Record 5 Date of Approval of plan 6th Sept 1918 Number and Description or Type
 Boilers 3 Porter Water Tube Working Pressure 225 lbs Tested by Hydraulic Pressure to 400 lbs Date of Test 17-9-19
 of Certificate 168 Can each boiler be worked separately Yes Total Heating Surface of Boilers 9150 sq
 forced draught fitted Yes Area of fire grate (coal) in each Boiler 75 sq Total grate area of boilers in vessel including
 and Auxiliary ✓ No. and type of burners (oil) in each boiler 4 Dahl type No. and description of safety valves on
 boiler 2 Spring loaded Area of each valve 7.06 Pressure to which they are adjusted 200 lbs
 they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler ✓
 least distance between boilers or uptakes and bunkers or woodwork 8" Height of Boiler 16-9 1/4" Width and Length 13-2" x 14-3"
 am Drums:—Number in each boiler One Inside diameter 42" Material of plates O.H. Steel Thickness 3/4"
 age of Tensile Strength 60000 to 71680 lbs Are drum shell plates welded or flanged No Description of riveting:—
 seams Single long. seams Triple Diameter of rivet holes in long. seams 15/16 Pitch of Rivets 7 3/4"
 of plate or width of butt straps Outside 1 1/4" Thickness of straps 9/16" Percentage strength of long. joint:—Plate 70.8 Rivet 60.9
 meter of tube holes in drum 3 1/2" Pitch of tube holes 7 3/4" Percentage strength of shell in way of tubes 66.9
 Drum has a flat side state method of staying No flat sides Depth and thickness of girders at centre
 fitted) ✓ Distance apart ✓ Number and pitch of stays in each ✓ Working pressure
 rules ✓ Steam Drum Heads or Ends:—Material O.H. Steel Thickness 3/4" Radius or how stayed 42" Rad
 e of Manhole or Handhole 11" x 15" Water Drums:—Number in each boiler None Inside Diameter ✓
 terial of plates ✓ Thickness ✓ Range of tensile strength ✓ Are drum shell plates welded
 flanged ✓ Description of riveting:—Cir. seams ✓ long. seams ✓ Diameter of Rivet Holes in
 g. 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 ✓
 dius or how stayed ✓ Size of manhole or handhole ✓ Headers or Sections:—Number Two
 aterial O.H. Steel Thickness 3/4" Tested by Hydraulic Pressure to 450 lbs Material of Stays Iron
 ea at smallest part 1 1/8" Area supported by each stay 50.24 Working Pressure by Rules 243.6 Tubes:—Diameter 3"
 thickness 10 BWG 1 1/2" Number 489 Steam Dome or Collector:—Description of Joint to Shell None
 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
 Rules ✓ Crown or End Plates:—Material ✓ Thickness ✓ How stayed ✓

SUPERHEATER. Type ✓ Date of Approval of Plan ✓ 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 ✓
 Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is easing gear fitted ✓
 a drain cock or valve fitted at lowest point of superheater ✓ Number, diameter, and thickness of tubes ✓
 Spare Gear. Tubes ✓ Gaskets or joints:—Manhole ✓ Handhole ✓ Handhole plates ✓

The foregoing is a correct description,
The Barber Asphalt Paving Co Manufacturer.
Albert T. Clay for Manager

Dates July 9. 10. 15. 19. Aug 4. 6. 13. 27. Sept 3. 9. 17. Is the approved plan of boiler forwarded herewith ✓
 Survey while During progress of work in shops - -
 sailing During erection on board vessel - - Total No. of visits 23

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under Special Survey:— The material and workmanship are sound and good. Headers with tubes assembled, and steam drums were tested separately: Boilers to be assembled and final hydraulic test made to complete survey. They have been forwarded to the Carolina S. B. Co to be installed in Hull 1450. Safety valves adjusted to 200 lbs press.

Survey Fee Buffalo \$82.50 When applied for 191
 Travelling Expenses (if any) ✓ When received Sept 1919

A. W. Bredde Gen. Allan
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York AUG 31 1920
 Assigned See Nilm. Rpt No 83

