

REPORT ON WATER TUBE BOILERS.

MoLE 6744

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 Net 4049 Tons

Builder J. S. Lynch Built at Wilmington, N.C. By whom built George A. Fuller & Co When built 1920

Boilers made at Buffalo, N.Y. By whom made The O'Neil Iron Works When made 1920

Boilers made at Buffalo, N.Y. By whom made Barber Asphalt Paving Co When made 9-19

Registered 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 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

main and Auxiliary Yes 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 Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 8" Height of Boiler 16' 9 3/4" Width and Length 13'-2" x 14'-3"

Water Drums:—Number in each boiler One Inside diameter 42" Material of plates O.H. Steel Thickness 3/4"

Range of Tensile Strength 6000 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"

Thickness of plate or width of butt straps Outside 1/4" Thickness of straps 9/16" Percentage strength of long. joint:—Plate 70.8 Rivet 60.9

Diameter of tube holes in drum 3 3/8" 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 Yes Number and pitch of stays in each Yes Working pressure

rules Yes Steam Drum Heads or Ends:—Material O.H. Steel Thickness 3/4" Radius or how stayed 42" Rad

Material of Manhole or Handhole 11" x 15" Water Drums:—Number in each boiler None Inside Diameter Yes

Material of plates Yes Thickness Yes Range of tensile strength Yes Are drum shell plates welded

flanged Yes Description of riveting:—Cir. seams Yes long. seams Yes Diameter of Rivet Holes in

long. seams Yes Pitch of rivets Yes Lap of plates or width of butt straps Yes Thickness of straps Yes

Percentage strength of long. joint:—Plate Yes Rivet Yes Diameter of tube holes in drum Yes Pitch of tube holes Yes

Percentage strength of drum shell in way of tubes Yes Water Drum Heads or Ends:—Material Yes Thickness Yes

Radius or how stayed Yes Size of manhole or handhole Yes Headers or Sections:—Number Two

Material O.H. Steel Thickness 3/4" Tested by Hydraulic Pressure to 450 lbs Material of Stays Iron

Area at smallest part 1.582" Area supported by each stay 50.24" Working Pressure by Rules 243.6 Tubes:—Diameter 3"

Thickness 10 BWG Number 489 Steam Dome or Collector:—Description of Joint to Shell None

Percentage strength of Joint Yes Diameter Yes Thickness of shell plates Yes Material Yes

Description of longitudinal joint Yes Diameter of Rivet Holes Yes Pitch of Rivets Yes Working Pressure of shell

Rules Yes Crown or End Plates:—Material Yes Thickness Yes How stayed Yes

SUPERHEATER. Type Yes Date of Approval of Plan Yes Tested by Hydraulic Pressure to Yes

Date of Test Yes Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes

Diameter of Safety Valve Yes Pressure to which each is adjusted Yes Is easing gear fitted Yes

Is a drain cock or valve fitted at lowest point of superheater Yes Number, diameter, and thickness of tubes Yes

Pressure Gear. Tubes Yes Gaskets or joints:—Manhole Yes Handhole Yes Handhole plates Yes

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

Dates of Survey:—During progress of work in shops July 9, 10, 15, 19, Sept 3, 9, 17 Is the approved plan of boiler forwarded herewith Yes

During erection on board vessel April 24, 28, May 8, 17, June 11, 15, 17, 20, 22, July 2, 10, 17 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. Breddeell Gen. Allan
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York AUG 31 1920

Assigned See Nilm. Rpt No 83

