

REC'D NEW YORK Aug. 31 1918

Rpt. 5a.

# REPORT ON BOILERS.

2923  
No. 1257

Date of writing Report Aug 11<sup>th</sup> 1917 When handed in at Local Office Aug 13<sup>th</sup> 1917 Port of Newport News  
No. in Survey held at Newport News Date, First Survey May 10<sup>th</sup> Last Survey August 11 1917  
Req. Book. S/S "MIDDLEBURY" (Number of Visits 19) Gross 2585.13  
NEW on the FUSEY & JONES HULL # 1003 Tons { Net 1469.  
Master ✓ Built at Wilmington Del By whom built FUSEY & JONES When built 1918.  
Engines made at Yonton By whom made De Laval Steam Turbine Co When made 1918  
Boilers made at NEWPORT NEWS By whom made NEWPORT NEWS S & I Co When made 1917  
NOMINAL Registered Horse Power 233 310 Owners United States Shipping Board Port belonging to Wilmington Del.  
Emergency Fleet Corporation

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel LUKENS & S Co  
(Letter for record S.) Total Heating Surface of Boilers 4258 Is forced draft fitted yes No. and Description of Boilers 2 SCOTCH S.E. Working Pressure 200 Tested by hydraulic pressure to 300 Date of test 11.8.17  
No. of Certificate 178 Can each boiler be worked separately yes Area of fire grate in each boiler 42.7 No. and Description of safety valves to each boiler Two direct spring Area of each valve 7.06 Pressure to which they are adjusted 200  
Are they fitted with easing gear yes. 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 12" Mean dia. of boilers 13'0" Length 11'0"  
Material of shell plates S Thickness 1 1/2" Range of tensile strength 60,000 Are the shell plates welded or flanged no  
Descrip. of riveting: cir. seams W.R.L. long. seams W.B.S.T.R. Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 7 5/8"  
Lap of plates or width of butt straps 20 1/2" Per centages of strength of longitudinal joint rivets 106.5 Working pressure of shell by plate 82.0  
rules 210 Size of manhole in shell 16 x 17 Size of compensating ring 38 x 34 No. and Description of Furnaces in each boiler 2 MARION Material S. Outside diameter 48 1/2" Length of plain part top ✓ Thickness of plates crown 5 1/4" bottom 5 1/8"  
Description of longitudinal joint Weld No. of strengthening rings ✓ Working pressure of furnace by the rules 209 Combustion chamber plates: Material S Thickness: Sides 5 1/8" Back 5 1/8" Top 5 1/8" Bottom 5 1/8" Pitch of stays to ditto: Sides 7 1/2 x 7 1/2" Back 7 1/2 x 7 1/2" Top 7 1/2 x 7 1/2" If stays are fitted with nuts or riveted heads NUTS Working pressure by rules 240 Material of stays S. Area at smallest part 147 Area supported by each stay 56.2 Working pressure by rules 210 End plates in steam space: Material S Thickness 1 3/32"  
Pitch of stays 14 x 6 How are stays secured W.N. Working pressure by rules 237 Material of stays S Area at smallest part 20 1/8"  
Area supported by each stay 224 Working pressure by rules 217 Material of Front plates at bottom S Thickness 3 1/4" Material of Lower back plate STEEL Thickness 3 1/4" Greatest pitch of stays 13 Working pressure of plate by rules 160 Diameter of tubes 2 3/4"  
Pitch of tubes 3 3/4 x 4 Material of tube plates S Thickness: Front 3 1/4" Back 3 1/4" Mean pitch of stays 9 3/4" Pitch across wide water spaces 12 3/4" Working pressures by rules 279 Girders to Chamber tops: Material S. Depth and thickness of girder at centre 2-10 x 3 1/4" Length as per rule 33 Distance apart 7 Number and pitch of Stays in each 3- 7 1/2"  
Working pressure by rules 229 Steam dome: description of joint to shell ✓ % of strength of joint ✓  
Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓  
Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓

SUPERHEATER. Type Foster Date of Approval of Plan Plan in New York Tested by Hydraulic Pressure to 600.  
Date of Test 3-5-17. Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes.  
Diameter of Safety Valve 1 1/2" Pressure to which each is adjusted 208. Is Easing Gear fitted yes.

The foregoing is a correct description,  
Newport News Shipbuilding & Dry Dock Co.,  
Manufacturer.  
By W. H. Marsden  
Assistant to the President

Dates of Survey { During progress of work in shops - - - 14.10.17.73.79.✓.5.9.13.16.20.25.29 Is the approved plan of boiler forwarded herewith yes -  
while building { During erection on board vessel - - - ✓.10.16.20.24.26.30.4.11 Total No. of visits 19

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boilers have been built under special survey in accordance with the approved plan & rules. The materials and workmanship are good and under the vessel eligible, in my opinion, to have the return 2.S.B. 700 M in the Register Book -

Survey Fee ... \$52.70 When applied for, 11.8.1917  
Travelling Expenses (if any) £ ... : When received, 9.1.1919

Committee's Minute  
Assigned See Phil. Rpt 2923  
W. H. Marsden  
Engineer Surveyor to Lloyd's Register of Shipping.  
J. Blalock  
Lloyd's Register Foundation

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