

# REPORT ON BOILERS.

No. 2982

Received at London Office

REC'D NEW YORK Oct 5 1918  
 Date of writing Report Sept 27 1918 When handed in at Local Office 1918 Port of Philadelphia Pa  
 No. in Survey held at Wilmington Del Date, First Survey March 9 1916 Last Survey Sept 21 1918  
 Reg. Book. on the S.S. "O.T. Waring" (Number of Visits) } Gross 5600  
 Master W.J. Healy Built at Wilmington By whom built Bethlehem Ship Bldg Co (Harlan Plant) When built 1918  
 Engines made at Wilmington Del By whom made Bethlehem Ship Bldg Co (Harlan Plant) When made 1918  
 Boilers made at Wilmington Del By whom made Bethlehem Ship Bldg Co (Harlan Plant) When made 1916-17  
 Registered Horse Power Owners Emergency Fleet Corp Port belonging to Washington D.C.

## MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel Lubens

(Letter for record S) Total Heating Surface of Boilers 1344.5 Is forced draft fitted NO No. and Description of Boilers 1 SE Scotch Marine Working Pressure 180 lb. Tested by hydraulic pressure to 240 lb. Date of test 21-9-17

No. of Certificate 145 Can each boiler be worked separately  Area of fire grate in each boiler 43.45 No. and Description of safety valves to each boiler 2 - 2 1/2" Spring loaded Area of each valve 4.9 Pressure to which they are adjusted 180 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 8'-0" Mean dia. of boilers 11'-1" Length 11'-9"

Material of shell plates Steel Thickness 1" Range of tensile strength 60000-71680 Are the shell plates welded or flanged NO

Descrip. of riveting: cir. seams D.R. long. seams TR, DBS Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 6 1/2"

Lap of plates or width of butt straps 16 1/4" Per centages of strength of longitudinal joint rivets 90.9% Working pressure of shell by rules 82.6%

boiler 2. Mariner Material Steel Outside diameter 3'-10 3/8" Length of plain part top 9 1/16" Thickness of plates bottom 9 1/16" Combustion chamber

Description of longitudinal joint Weld No. of strengthening rings 1 Working pressure of furnace by the rules 194 lb. Material of stays Steel Area at

plates: Material Steel Thickness: Sides 2 1/32" Back 2 1/32" Top 2 1/32" Bottom 1 3/16" Pitch of stays to ditto: Sides 7 1/2" x 7 1/2" Back 7 1/4" x 7 1/2"

Top 7 1/2" x 7 1/2" stays are fitted with nuts or riveted heads Riveted heads Working pressure by rules 196 lb. Material of stays Steel Area at smallest part 1 1/2"

Pitch of stays 15" x 15" How are stays secured By nuts Working pressure by rules 184 lb. Material of stays Steel Area at smallest part 4 1/2"

Area supported by each stay 225" Working pressure by rules 213 1/2" Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest nitch of stays 13 1/2" Working pressure of plate by rules 264 lb. Diameter of tubes 2 3/4"

Pitch of tubes 3 3/4" x 4" Material of tube plates Steel Thickness: Front 3/16" Back 3/16" Mean pitch of stays 9 1/2" Pitch across wide water spaces 13" Working pressures by rules 212 lb. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9" x 1 3/4" Length as per rule 33" Distance apart 7 1/2" Number and pitch of Stays in each 3 - 7 1/2"

Working pressure by rules 239.4 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 --- 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 ---

The foregoing is a correct description,  
 BETHLEHEM SHIPBUILDING CORPN., LTD. HARBAN PLANT  
J. W. Weaver General Manager, Manufacturer.

Is the approved plan of boiler forwarded herewith ---

Dates of Survey while building --- During progress of work in shops --- During erection on board vessel ---

See report 4.

Total No. of visits ---

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

Survey Fee --- £  
 Travelling Expenses (if any) --- £

When applied for, --- 191  
 When received, --- 191

See report 4

Committee's Minute

New York OCT 8 1918

Assigned

See Phil. Rpt 2982.

Wm. Tunham 2020  
 Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation