

## REPORT ON BOILERS.

No. 3064

Received at London Office

REC'D NEW YORK Dec 20 1918  
 Date of writing Report Dec 21 1918 When handed in at Local Office Dec 21 1918 Port of Philadelphia JAN 12 1919  
 No. in Survey held at Wilmington Del Date, First Survey June 27 1917 Last Survey Sept 12 1917  
 Reg. Book. on the Steel S.S. Charles M. Everest (Number of Visits) Gross 5.600 Tons Net 3.379  
 Master S.S. Davis Built at Wilmington By whom built Bethlehem Ship Bldg Corp Ltd When built 1918  
 Engines made at Wilmington Del By whom made Bethlehem Ship Bldg Corp Ltd When made 1918  
 Boilers made at Wilmington Del By whom made Bethlehem Ship Bldg Corp Ltd (Harlan Plant) When made 1917  
 Registered Horse Power 528 Owners United States Shipping Board Port belonging to Washington

**MULTITUBULAR BOILERS** ~~MAIN, AUXILIARY OR DONKEY.~~ Manufacturers of Steel Lukens.  
 (Letter for record S) Total Heating Surface of Boilers 1244.5 Is forced draft fitted Ys No. and Description of Boilers 1 SE Scotch Marine Working Pressure 180 lb Tested by hydraulic pressure to 270 Date of test 21-9-17  
 No. of Certificate 146 Can each boiler be worked separately Area of fire grate in each boiler 43.75 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 Ys In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Ys  
 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 60,000-71,680 Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams DR. L 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% plate 82.6% Working pressure of shell by rules 183.9 Size of manhole in shell 12" x 16" Size of compensating ring 30" x 24" x 1" No. and Description of Furnaces in each boiler 2 Monson Material Steel Outside diameter 3'-10 1/8" Length of plain part top Thickness of plates crown 9 1/16" bottom  
 Description of longitudinal joint Need No. of strengthening rings Working pressure of furnace by the rules 191.6 Combustion chamber 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 7/2" x 7/2" Back 4" x 7/2"  
 Top 4 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads Rivetted heads Working pressure by rules 196 Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 16.25 Working pressure by rules 216.3 End plates in steam space: Material Steel Thickness 3/32"  
 Pitch of stays 15" x 15" How are stays secured DN Marks Working pressure by rules 187 Material of stays Steel Diameter at smallest part 4 1/2"  
 Area supported by each stay 225 Working pressure by rules 213.5 Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 12 1/2" x 7 1/2" Working pressure of plate by rules 26.7 Diameter of tubes 2 3/4"  
 Pitch of tubes 3 3/4" x 4" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9.75" 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 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

The foregoing is a correct description,  
 BETHLEHEM SHIPBUILDING CORPN., LTD. HARLAN PLANT  
 By M. J. Smith Manufacturer.

ASSISTANT GENERAL MANAGER

Dates of Survey During progress of work in shops - June 27, July 5-11-20-25, Aug 1-8-15-22-27, Sept 4-12-1917  
 while building During erection on board vessel - - -  
 Is the approved plan of boiler forwarded herewith In New York.  
 Total No. of visits 12

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

see report 4

Survey Fee See Rpt 4 : : When applied for, 191  
 Travelling Expenses (if any) £ : : When received, 191

Committee's Minute

Assigned

See other report

New York DEC 31 1918

W. R. Ham  
 Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
 Foundation

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