

REPORT ON BOILERS.

17520
No. 2828

REC'D NEW YORK

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Writing Report *Sept. 23rd 1919* When handed in at Local Office *Sept. 23rd 1919* Port of *Philadelphia*
 in Survey held at *Wilmington Del.* Date, First Survey *31st Oct 1917* Last Survey *191*
 Book. *Main Boilers for the U.S. Keweenaw* *Bethlehem S. B. Corp.*
 on the *Mogridge* Built at *Elizabeth N.J.* By whom built *S. L. Moore & Sons Ltd.* When built *1919-8*
H.P. nes made at *Elizabeth N.J.* By whom made *Bethlehem S. B. Corp. (Moore Plant)* When made *1919-8*
 ers made at *Wilmington Del.* By whom made *Harlan Plant. Contract S-3577* When made *1918-8*
 Cea. *United States Shipping Board* Port belonging to *Elizabeth N.J.*

ULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Worth Bros.*
 ter for record *S.*) Total Heating Surface of Boilers *5510 sq ft* Is forced draft fitted *Yes* No. and Description of
 ors *Two single ended.* Working Pressure *190* Tested by hydraulic pressure to *285* Date of test *23-4-18*
 of Certificate *187* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *78 sq ft* No. and Description of
 y valves to each boiler *Three spring loaded* Area of each valve *9.62 sq ft* Pressure to which they are adjusted *195 lbs.*
 they fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *✓*
 eldest distance between boilers or *uptakes and funnels are welded* *about 6'-0"* Mean dia. of boilers *18 1/2"-53"* Length *11'-6"*
 erial of shell plates *Steel* Thickness *1 1/2"* Range of tensile strength *58000 min* Are the shell plates welded or flanged *no*
 10/4 rip. of riveting: cir. seams *DR LAP* long. seams *TR DBS* Diameter of rivet holes in long. seams *1 1/2"* Pitch of rivets *9-659"*
 er 13/4 of plates or width of butt straps *22 1/2"* Per centages of strength of longitudinal joint *96-1* Working pressure of shell by
 16/7/8 204 Size of manhole in shell *12 x 16* Size of compensating ring *39 x 35* No. and Description of Furnaces in each
 or 4 nozzles Material *Steel* Outside diameter *3'-7 1/2"* Length of plain part *top 9" bottom 16"* Thickness of plates *crown 9" bottom 16"*
 ription of longitudinal joint *weld* No. of strengthening rings *✓* Working pressure of furnace by the rules *204* Combustion chamber
 es: Material *Steel* Thickness: Sides *31/32"* Back *31/32"* Top *31/32"* Bottom *27/32"* Pitch of stays to ditto: Sides *7 1/2" x 7 1/2"* Back *7 1/2" x 7 1/2"*
 o. 31/8 x 8 1/2" If stays are fitted with nuts or riveted heads *riveted heads* Working pressure by rules *196* Material of stays *Steel* Diameter at
 o. 31/8 least part *1-5"* Area supported by each stay *56.25 sq in* Working pressure by rules *216* End plates in steam space: Material *Steel* Thickness *1 1/2"*
 h of stays *16.5 x 15"* How are stays secured *DN & W* Working pressure by rules *203* Material of stays *Steel* Diameter at smallest part *5-1/8"*
 a supported by each stay *247.5 sq in* Working pressure by rules *222* Material of Front plates at bottom *Steel* Thickness *7/8"* Material of
 ver back plate *Steel* Thickness *7/8"* Greatest pitch of stays *13 1/2" x 7 1/2"* Working pressure of plate by rules *221* Diameter of tubes *3"*
 ch of tubes *4 1/2" x 4"* Material of tube plates *Steel* Thickness: Front *13/16"* Back *3/4"* Mean pitch of stays *10 1/2"* Pitch across wide
 er spaces *14"* Working pressures by rules *192* Girders to Chamber tops: Material *Steel* Depth and thickness of
 der at centre *9 1/2" x 1 1/2"* Length as per rule *33"* Distance apart *8 1/2"* Number and pitch of Stays in each *3 x 7 1/2"*
 rking pressure by rules *220* Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 arately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 es Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 rking 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 *W. H. Smith* Manufacturer.

ASSISTANT GENERAL MANAGER

Dates) During progress of *Oct 31, Nov 7, 14, 21, 26, Dec 6, 12 1917* Is the approved plan of boiler forwarded herewith *Yes*
 Survey) work in shops - - *Jan 2, 9, 18, 23, Feb 5, 14, 27, Mar 6, 14, Apr 11, 17, 22 1918*
 while) During erection on
 building) board vessel - - -

Total No. of visits

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

The two main boilers for this vessel have been constructed under special survey, the workmanship is sound & good, they have been tested by hydraulic pressure as stated above and are in my opinion eligible to be classed as recommended first entry machinery report. These Boilers have now been efficiently secured in place under main frame for service.

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

classification fee and \$10.00 expenses to be credited to Philadelphia

Committee's Minute

Assigned

See N.Y. Rpt 17520

Engineer Surveyor to Lloyd's Register of Shipping.

W. H. Smith
 Lloyd's Register
 Foundation

009376-009386-0015