

REPORT ON BOILERS.

No. 709.

Received at London Office

TUE. MAR. 11. 1913

Date of writing Report *Oct. 3rd 1912* When handed in at Local Office *19* Port of *Bogton, Mass.*

No. in Survey held at *Bath Inc* Date, First Survey *June 29th* Last Survey *Sept. 25th 1912*

Reg. Book. *S/S FREIDA Hull No. 208* (Number of Visits *6*) Tons *Gross* *Net*

Master *Building* *Iming Mass* By whom built *Fore River Shipbuilding Co* When built *1912*

Engines made at *Iming Mass* By whom made *Fore River Shipbuilding Co* when made *1912*

Boilers made at *Bath Inc* By whom made *Bath Iron Works* when made *1912*

Registered Horse Power *372* Owners *Union Sulphur Co.* Port belonging to *New York*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Lukens Iron & Steel Co. Central Iron & Steel Co.*

(Letter for record *S.*) Total Heating Surface of Boilers *5277* Is forced draft fitted *Yes* No. and Description of Boilers *Two S.E. Multitubular* Working Pressure *190 lbs* Tested by hydraulic pressure to *380 lbs* Date of test *Sept. 25th*

No. of Certificate *3* Can each boiler be worked separately Area of fire grate in each boiler *60* No. and Description of safety valves to each boiler *Twin spring 3 1/2" dia* Area of each valve *9.62* Pressure to which they are adjusted

Are they fitted with easing gear 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 Mean dia. of boilers *14.9"* Length *12.7"*

Material of shell plates *Steel* Thickness *1 1/32"* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *D.R. Lap* long. seams *D.B.S. T.R.* Diameter of rivet holes in long. seams *1 5/16"* Pitch of rivets *4 1/16" 8 3/8"*

Lap of plates or width of butt straps *19 1/4" x 12"* Per centages of strength of longitudinal joint *84.2%* Working pressure of shell by rules *196 lbs* Size of manhole in shell *12" x 16"* Size of compensating ring *35" x 31"* No. and Description of Furnaces in each boiler *3 Morrison* Material *Steel* Outside diameter *48 3/16"* Length of plain part *4 1/2"* Thickness of plates *19 3/32"*

Description of longitudinal joint *Welded* No. of strengthening rings Working pressure of furnace by the rules *195 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *2 1/32"* Back *4 1/64"* Top *4 1/64"* Bottom *2 1/32"* Pitch of stays to ditto: Sides *8 1/2" x 7 1/2"* Back *8" x 7 1/2"*

Top *8 1/2" x 7 1/2"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *220 lbs* Material of stays *Steel* Diameter at smallest part *1 3/8"* Area supported by each stay *63.75* Working pressure by rules *22 1/16 lbs* End plates in steam space: Material *Steel* Thickness *1 1/64"*

Pitch of stays *16" x 17"* How are stays secured *D.R. T.R.W.* Working pressure by rules *193 lbs* Material of stays *Steel* Diameter at smallest part *2 3/4"*

Area supported by each stay *272* Working pressure by rules *196 lbs* Material of Front plates at bottom *Steel* Thickness *1 1/64"* Material of Lower back plate *Steel* Thickness *1 1/64"* Greatest pitch of stays *13" x 8"* Working pressure of plate by rules *305 lbs* Diameter of tubes *2 1/2"*

Pitch of tubes *3 1/4" x 3 1/2"* Material of tube plates *Steel* Thickness: Front *1 1/64"* Back *3/4"* Mean pitch of stays *8.37"* Pitch across wide water spaces *12 1/2"* Working pressures by rules *219 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *8 1/4" x 13 1/16" x 2"* Length as per rule *30.28 1/2"* Distance apart *8 1/2"* Number and pitch of Stays in each *3-7 1/2"*

Working pressure by rules *205 lbs* 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,
Bath Iron Works Ltd Manufacturer.
W.S. Acwell

Dates of Survey *June 28th July 19th Aug. 16th Sept. 6th 20th and 25th 1912* Is the approved plan of boiler forwarded herewith *Yes*

During progress of work in shops Total No. of visits *6*

While building board vessel

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. *The main boilers of this vessel have been constructed and fitted under special survey and the workmanship is sound and good throughout.*

Survey Fee ... £ : : *To be applied for* When applied for, *19*

Travelling Expenses (if any) £ : : *on completion* When received, *19*

Blewart Dimpfel
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute *FRI. 100 11 1013*

Assigned *See minute on*
Bo. Rpt 708

