

## REPORT ON BOILERS.

No. 709.

Received at London Office TUE. MAR. 11. 1913

Date of writing Report Oct. 3<sup>rd</sup> 1912 When handed in at Local Office 19 Port of Boston, Mass.

No. in Survey held at Bath Inc Date, First Survey June 29<sup>th</sup> Last Survey Sept. 25<sup>th</sup> 1912

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

Master Building Built at Quincy Mass. By whom built Fox River Shipbuilding Co. When built 1912

Engines made at Quincy Mass. By whom made Fox 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 &amp; Steel Co. Central Iron &amp; Steel Co.

(Letter for record S.) Total Heating Surface of Boilers 5277  $\square$  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. 25<sup>th</sup>

No. of Certificate 3 Can each boiler be worked separately Area of fire grate in each boiler 60  $\square$  No. and Description of safety valves to each boiler Twin spring 3 1/2" dia. Area of each valve 9.62  $\square$  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 rivets 84.2% plate 83.8% 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 top 4 1/2" Thickness of plates crown 19 3/32" bottom

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 1/2" 1 3/8" Area supported by each stay 63.75" Working pressure by rules 221 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  $\square$  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. A. recall

Dates of Survey During progress of work in shops - - - June 28<sup>th</sup> July 19<sup>th</sup> Aug. 16<sup>th</sup> Sept. 6<sup>th</sup> Is the approved plan of boiler forwarded herewith Yes

while building During erection on board vessel - - - 20<sup>th</sup> and 25<sup>th</sup> 1912 Total No. of visits 6

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 on completion 19

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

Committee's Minute

Assigned

FRI. MAR. 11 1913

See Minute on

Bo. Rpt 708

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

Blewart Mumpel

Lloyd's Register

Foundation

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