

## REPORT ON BOILERS.

No. 8027.

22 APR. 1918

Received at London Office

Date of writing Report *24<sup>th</sup> Oct 1918* When handed in at Local Office *1918* Port of *Belfast*  
 No. in Survey held at *Belfast* Date, First Survey *3<sup>rd</sup> June 1918* Last Survey *18<sup>th</sup> Oct 1918*  
 Reg. Book. on the *C class Standard S.S. 563 (T.S.S. NERBUDDA)* (Number of Visits *13*) Gross Tons *1918*  
 Master Built at *Glasgow* By whom built *Barclay Curle & Co Ltd (No 563)* When built *1918*  
 Engines made at *Glasgow* By whom made *Barclay Curle & Co Ltd (No 563)* When made *1918*  
 Boilers made at *Belfast* By whom made *Warkman Clark & Co Ltd* When made *1918*  
 Registered Horse Power Owners *British India Steam Navigation Co Ltd* Port belonging to *Glasgow* X

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel *Stewart & Laidlaw*

Letter for record *P* Total Heating Surface of Boilers *17079 sq ft* Is forced draft fitted *Yes* No. and Description of Boilers *3 Double End Cylinders* Working Pressure *200 lbs* Tested by hydraulic pressure to *400 lbs* Date of test *18-10-18*  
 No. of Certificate *533* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *146.6 sq ft* No. and Description of safety valves to each boiler *3 - Wood Spring* Area of each valve *14.18 sq in* Pressure to which they are adjusted *200 lbs*  
 Are they fitted with easing gear *Yes* 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 *1-6"* Mean dia. of boilers *16'-3"* Length *20'-6"*  
 Material of shell plates *Steel* Thickness *1 1/2"* Range of tensile strength *28-32 Tons* Are the shell plates welded or flanged *No*  
 Descrip. of riveting: cir. seams *Lap Dr S.* long. seams *Butt Lap* Diameter of rivet holes in long. seams *1 1/2"* Pitch of rivets *10 1/2"*  
 Width of butt straps *22 1/2"* Per centages of strength of longitudinal joint *85.2* Working pressure of shell by rules *85.7*  
 Size of manhole in shell *16" x 12"* Size of compensating ring *Mc Kels* No. and Description of Furnaces in each boiler *8 - Repton* Material *Steel* Outside diameter *44 1/2"* Length of plain part *4'* Thickness of plates *3 1/2"*  
 Description of longitudinal joint *Weld* No. of strengthening rings *✓* Working pressure of furnace by the rules *213 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *7/16"* Back *✓* Top *7/16"* Bottom *7/16"* Pitch of stays to ditto: Sides *9 1/2" x 8 1/2"* Back *✓*  
 Stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *211 lbs* Material of stays *Steel* Area at smallest part *2375 sq in* supported by *each* stay *778 sq in* Working pressure by rules *241 lbs* plates in steam space: Material *Steel* Thickness *1 1/2"*  
 How are stays secured *Butt Weld* Working pressure by rules *201 lbs* Material of stays *Steel* Area at smallest part *7.66 sq in*  
 Working pressure by rules *218 lbs* Material of Front plates at bottom *Steel* Thickness *1"* Material of lower back plate *✓* Thickness *✓* Greatest pitch of stays *✓* Working pressure of plate by rules *✓* Diameter of tubes *2 1/2"*  
 Material of tube plates *Steel* Thickness: Front *1/4"* Back *1/4"* Mean pitch of stays *1 1/4" x 7 1/4"* Pitch across wide  
 Working pressures by rules *203 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of  
 Length as per rule *52 1/2"* Distance apart *8 1/2" x 7"* Number and pitch of Stays in each *6 - 8 1/2" x 6 3/4"*  
 Working pressure by rules *235 lbs* Steam dome: description of joint to shell *✓* % of strength of joint  
 Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet holes *✓*  
 Working pressure of shell by rules *✓* Crown plates *✓* Thickness *✓* How stayed *✓*

## SUPERHEATER.

Type *✓* Date of Approval of Plan *✓* Tested by Hydraulic Pressure to *✓*Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *✓*Pressure to which each is adjusted *✓* Is Easing Gear fitted *✓*

The foregoing is a correct description,

FOR WORKMAN, CLARK &amp; CO., LIMITED.

M. A. Bell

Manufacturer.

Is the approved plan of boiler forwarded herewith *No*  
 Total No. of visits *13*

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

These boilers have been constructed under Special Survey, and in accordance with the Rules, and instructions of the Controller of Shipping. They have been sent to Glasgow to be fitted on board N° 563 vessel, building by Barclay Curle & Co Ltd.

Survey Fee *£ 37/17/3* When applied for, *1918*  
 Travelling Expenses (if any) *£* When received, *1918*

These Boilers have now been satisfactorily fitted to the vessel & tried under steam.

R. L. O'Donnell  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 29 APR 1919*Signed *See Glasgow Report No. 38689*

Lloyd's Register  
 Foundation