

WED. FEB. 11. 1920

## REPORT ON BOILERS.

No. 10462

Date of writing Report 22. 7. 1919 When handed in at Local Office 21. 8. 1919 Port of Middleton  
 No. in Survey held at Darlington & Grimsby Date, First Survey 4<sup>th</sup> March Last Survey 11<sup>th</sup> July 1919  
 Reg. Book. on the Boiler No. 3339 for Steam Lighter No. 14 "WARLIGHT" (Number of Visits 7) Gross 135 Tons Net 63  
 Master Greenock Built at Greenock By whom built Messrs. Ross & Marshall When built 1920. 2  
 Boilers made at Darlington By whom made Blake Boiler, Wagon & Co. Ltd When made 1919  
 Owners Ross and Marshall Ltd. Port belonging to Greenock.

**MAIN VERTICAL DONKEY BOILER**— No. One Description Blake Patent Manufacturers of steel John. Spencer & Sons Ltd.  
 Made at Darlington By whom made Blake Boiler, Wagon & Co. Ltd When made 1919 Where fixed Boiler Spun Working pressure 130 lbs  
 tested by hydraulic pressure to 260 Date of test 11. 7. 19 No. of Certificate 6014 Fire grate area 28 sq Description of safety valves Spring Loaded  
 No. of safety valves 2 Area of each 4.9 sq Pressure to which they are adjusted 135 lbs If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler Yes Dia. of donkey boiler 7'-6" Length 15'-6" Material of shell plates S Thickness 2 1/32" Range of tensile strength 28/32 Descrip. of riveting long. seams 2 R. Lap Dia. of rivet holes 1 1/16" Whether punched or drilled Drilled Pitch of rivets 3 1/4"  
 Lap of plating 5" Per centage of strength of joint 64.33 Working pressure of shell by rules 130 lbs Thickness of shell crown plates 2 1/32"  
 Radius of do. 3'-9" No. of Stays to do. 2 Dia. of stays 12 x 1" Diameter of furnace Top 3'-8" Bottom 4'-4" Length of furnace 4'-10"  
 Thickness of furnace plates 13/16" Description of joint Weld Working pressure of furnace by rules 137 Thickness of furnace crown plates 1 13/16" Radius of do. 3'-9" Stayed by as above Diameter of uptake 2 1/2" Thickness of uptake plates 8 13/16"  
 Thickness of water tubes

The foregoing is a correct description.

THE BLAKE BOILER, WAGON & CO. LTD., GRIMSBY.  
*W. Lane* Manufacturer.

Dates of Survey while building { During progress of work in shops - - } Mar. 4. 14. Apr. 9. May 9. Jun. 6. 25. Jul. 11.  
 { During erection on board vessel - - }  
 Total No. of visits 7

Is the approved plan of boiler forwarded herewith Yes.

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

This boiler has been built under special Survey, the materials & workmanship are good, and on completion it was tested by hydraulic press with satisfactory results.

This Boiler has been satisfactorily fitted on board the above Vessel.

*W. Lane*  
 Grimsby.

3. 2. 20

Survey Fee £ 2 : 2 : 0 When applied for, Monthly 9s.  
 Travelling Expenses (if any) £ - : 12 : 3 When received, 19

Committee's Minute GLASGOW 10 FEB 1920Assigned See Greenock Rpt No 17603

*John Forrester & Harriet McE. Paton.*  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.