

## REPORT ON BOILERS.

Aberdeen No 10989.

THU. NOV. 15. 1912

WED. OCT. 30. 1912

Date of writing Report 10 When handed in at Local Office 28/10/12 Port of Glasgow  
 No. in Survey held at Port Glasgow Date, First Survey 15<sup>th</sup> June 1912 Last Survey 21<sup>st</sup> Oct. 1912  
 Reg. Book. on the S.S. "Loch Morar" mess: The John Dunlop & Co. Ltd. 4000 H.P. 13. Gross 228.14 Tons  
Y. B. Booth Built at Aberdeen By whom built The John Dunlop & Co. Ltd. When built 1912  
 Engines made at Coatbridge By whom made W. V. V. Lidgerwood when made 1912  
 Boilers made at Port Glasgow By whom made Clyde & Co. Ltd. when made 1912  
 Registered Horse Power 41 Owners United Steam Fishing Co. of Aberdeen Ltd. Port belonging to Aberdeen.

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel Steel Co. of Scotland.  
 Letter for record S. Total Heating Surface of Boilers 1250 sq. ft. Is forced draft fitted No. No. and Description of  
 Boilers One Cylindrical Multi-Tube Engine Working Pressure 180 lbs Tested by hydraulic pressure to 260 lbs Date of test 21/10/12  
 No. of Certificate 1079 Can each boiler be worked separately ✓ Area of fire grate in each boiler 48.5 sq. ft. No. and Description of  
 Safety valves to each boiler ✓ Area of each valve ✓ 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 12' 6" Length 10' 3"  
 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 Double long. seams B. Butt Straps Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 4 1/2" 3 1/2"  
 Gap of plates or width of butt straps 16 1/2" Per centages of strength of longitudinal joint rivets 91.2 Working pressure of shell by  
 plates 182 lbs Size of manhole in shell 16 x 12" Size of compensating ring No. 1 Ring No. and Description of Furnaces in each  
 Boiler 1 Plain Material Steel Outside diameter 39 1/2" Length of plain part 44' Thickness of plates 3 1/2" crown 3 1/2"  
 Description of longitudinal joint Weld No. of strengthening rings 1 Ring Working pressure of furnace by the rules 186 lbs Combustion chamber  
 plates: Material Steel Thickness: Sides 2 1/2" Back 2 1/2" Top 2 1/2" Bottom 3 1/4" Pitch of stays to ditto: Sides 9 1/2 x 8" Back 9 1/2 x 8"  
 Top 9 1/2 x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 181 lbs Material of stays Steel Diameter at  
 smallest part 1 5/8" Area supported by each stay 38" Working pressure by rules 235 lbs End plates in steam space: Material Steel Thickness 1 1/2"  
 Pitch of stays 23 x 17" How are stays secured Double Nuts Working pressure by rules 181 lbs Material of stays Steel Diameter at smallest part 2.09"  
 Area supported by each stay 391" Working pressure by rules 200 lbs Material of Front plates at bottom Steel Thickness 3" Material of  
 lower back plate Steel Thickness 2 1/2" Greatest pitch of stays 12 3/4" Working pressure of plate by rules 193 lbs Diameter of tubes 3 1/2"  
 Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates Steel Thickness: Front 2 1/8" Back 3 1/4" Mean pitch of stays 10' 3" Pitch across wide  
 water spaces 13 1/2" Working pressures by rules 182 lbs 190 lbs Girders to Chamber tops: Material Steel Depth and thickness of  
 order at centre 8' x 12" Length as per rule 30 1/2" Distance apart 5' 8" Number and pitch of Stays in each 2: 9 1/2"  
 Working pressure by rules 180 lbs Superheater or Steam chest: how connected to boiler None 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  
 plates ✓ 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 ✓  
 Working pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

The foregoing is a correct description,  
 J. B. BOOTH & ENGINEERING CO. LIMITED, Manufacturer.

Dates Survey During progress of work in shops 1912. June 15. 19. 29. July 26. 30. Aug. 8. Sept. 2. Is the approved plan of boiler forwarded herewith ✓  
 while building During erection on board vessel 17. 25. Oct. 1. 4. 15. 21. Total No. of visits 13.

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

This main Boiler was built under special survey and the materials and workmanship are good. It has been despatched to Aberdeen where it will be fitted on board of the vessel. This boiler has now been fitted on board above named vessel. For recommendation of class See Aberdeen No 10989.

Survey Fee ... £ 4.00 : When applied for, 1912. 12. 10/12/12  
 Travelling Expenses (if any) £ : : When received, 9-12-12

Wm. Austin, Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.  
 FRI. NOV. 15. 1912

Committee's Minute

Assigned Transmit to London

GLASGOW 29 OCT. 1912

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