

# REPORT ON BOILERS.

No. 32001

WED. NOV. -6. 1912

Received at London Office

Date of writing Report 19. 10. 1912 When handed in at Local Office 2. 11. 1912 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 19. 4. 12 Last Survey 31. 10. 1912  
 Reg. Book. S/S Duncachton (Number of Visits 37.) Gross Tons 5201  
 Net Tons 3209  
 Master Built at Glasgow By whom built G. G. Coumell & Co. Ltd. When built 1912  
 Engines made at Glasgow By whom made Dunsour & Jackson (409) When made 1912  
 Boilers made at ditto By whom made ditto When made 1912  
 Registered Horse Power Owners Henderson & McIntosh Port belonging to Leith

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY~~ OR DONKEY. — Manufacturers of Steel ~~Readman & Spence~~

Letter for record S. Total Heating Surface of Boilers 950<sup>sq</sup> Is forced draft fitted No. No. and Description of Boilers One Single Ended Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 20. 8. 12  
 No. of Certificate 11429 Can each boiler be worked separately Area of fire grate in each boiler 32<sup>sq</sup> No. and Description of Safety valves to each boiler Double Spring Area of each valve 4.069<sup>sq</sup> Pressure to which they are adjusted 105  
 Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No  
 Smallest distance between boilers or uptakes and bunkers or woodwork 4-6 Mean dia. of boilers 11-0<sup>11</sup>/<sub>16</sub> Length 10-0  
 Material of shell plates S Thickness 11/16 Range of tensile strength 28/32 Are the shell plates welded or flanged  
 Descrip. of riveting: cir. seams DR long. seams TR 20p Diameter of rivet holes in long. seams 1 Pitch of rivets 3<sup>15</sup>/<sub>16</sub>  
 Lap of plates or width of butt straps 4<sup>11</sup>/<sub>16</sub> Per centages of strength of longitudinal joint rivets 84 7/10 plate 73 7/10 Working pressure of shell by rules 103 Size of manhole in shell 16x12 Size of compensating ring 80<sup>7</sup>/<sub>16</sub> No. and Description of Furnaces in each boiler 2 plain Material S Outside diameter 3.5<sup>3</sup>/<sub>8</sub> Length of plain part top 6.2 bottom 6.8 Thickness of plates crown 19/32 bottom 19/32  
 Description of longitudinal joint weld No. of strengthening rings Working pressure of furnace by the rules 112 Combustion chamber plates: Material S Thickness: Sides 17/32 Back 17/32 Top 17/32 Bottom 7/8 Pitch of stays to ditto: Sides 9<sup>1</sup>/<sub>2</sub> x 9 Back 8<sup>15</sup>/<sub>16</sub> x 8<sup>3</sup>/<sub>4</sub> Top 9<sup>1</sup>/<sub>2</sub> x 8<sup>1</sup>/<sub>4</sub> Working pressure by rules 106 Material of stays S Diameter at smallest part 3/4  
 Smallest part 78<sup>1</sup>/<sub>2</sub> Area supported by each stay 86.6 Working pressure by rules 105 End plates in steam space: Material S Thickness 3/4  
 Pitch of stays 16<sup>1</sup>/<sub>2</sub> x 14<sup>7</sup>/<sub>16</sub> How are stays secured 7/16 Working pressure by rules 110 Material of stays S Diameter at smallest part 303  
 Area supported by each stay 230 Working pressure by rules 132 Material of Front plates at bottom S Thickness 11/16 Material of Lower back plate S Thickness 11/16 Greatest pitch of stays 14<sup>3</sup>/<sub>4</sub> x 8<sup>3</sup>/<sub>4</sub> Working pressure of plate by rules 126 Diameter of tubes 3  
 Pitch of tubes 4<sup>1</sup>/<sub>4</sub> x 4<sup>1</sup>/<sub>2</sub> Material of tube plates S Thickness: Front 3/4 Back 5/8 Mean pitch of stays 11 Pitch across wide water spaces 14 Working pressures by rules 103 Girders to Chamber tops: Material 9iron Depth and thickness of girder at centre 6 x 3/4 (2) Length as per rule 26 1/4 Distance apart 8 1/4 Number and pitch of Stays in each 2 at 9 1/2  
 Working pressure by rules 108 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,  
 James Fletcher Manager Manufacturer.

Dates of Survey: During progress of work in shops - - - See accompanying Machinery report.  
 while building (During erection on board vessel - - -)

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the approved plan & the workmanship & material are of good quality. This Report accompanies that of the Machinery

Surveyed on Machinery Report: When applied for, 1912  
 Travelling Expenses (if any) £: When received, 1912

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

Committee's Minute GLASGOW 5 - NOV. 1912  
 Assigned See accompanying machinery report.

