

## REPORT ON BOILERS.

No. 29517  
WED. 23 NOV 1910

Date of writing Report 14<sup>th</sup> Nov 1910 When handed in at Local Office 14/11/1910 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 13<sup>th</sup> Sept Last Survey 12<sup>th</sup> Nov 1910  
 Reg. Book. on the boiler for the S/S "ENDCLIFFE" (Number of Visits 10) Gross Tons }  
 Master Built at Maryport By whom built W. Walker (N<sup>o</sup> 94) When built ✓  
 Engines made at Glasgow By whom made J. Ritchie (N<sup>o</sup> 37) when made 1910  
 Boilers made at do By whom made Asw. Dalglish (N<sup>o</sup> 478) when made 1910  
 Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel D. Colville & Sons.

(Letter for record ✓) Total Heating Surface of Boilers 1278<sup>ft</sup> Is forced draft fitted ✓ No. and Description of Boilers one single ended marine Working Pressure 130<sup>lb</sup> Tested by hydraulic pressure to 260<sup>lb</sup> Date of test 12.11.10  
 No. of Certificate 10660 Can each boiler be worked separately ✓ Area of fire grate in each boiler 47.25<sup>ft</sup> No. and Description of safety valves to each boiler Double Spring loaded Area of each valve 12.56<sup>sq</sup> Pressure to which they are adjusted 135<sup>lb</sup>  
 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 7'-0" Inside diam. of boilers 12'-6" Length 9'-6"  
 Material of shell plates Steel Thickness 25/32" 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 T.R.B.S. Diameter of rivet holes in long. seams 15/16" Pitch of rivets 6 7/8"  
 width of butt straps 14 3/4" Per centages of strength of longitudinal joint rivets 85.8% Working pressure of shell by rules 131<sup>lb</sup> Size of manhole in shell 16" x 12" Size of compensating ring 6" x 25/32" No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 39" Length of plain part 69" Thickness of plates 19/32"  
 Description of longitudinal joint welded No. of strengthening rings one Working pressure of furnace by the rules 140 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 1/2" Top 19/32" Bottom 9/16" Pitch of stays to ditto: Sides 8 1/2" x 8" Back 7 1/2" x 7 1/2"  
 Top 8 1/2" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 137<sup>lb</sup> Material of stays Steel Area at smallest part 1.24<sup>sq</sup> Area supported by each stay 56<sup>sq</sup> Working pressure by rules 132 End plates in steam space: Material Steel Thickness 7/8"  
 Pitch of stays 16" x 17" How are stays secured on + wash Working pressure by rules 133<sup>lb</sup> Material of stays Steel Diameter at smallest part 3.43<sup>sq</sup>  
 Area supported by each stay 272<sup>sq</sup> Working pressure by rules 131<sup>lb</sup> Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 163 Diameter of tubes 3 1/4"  
 Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 3/4" Back 5/8" Mean pitch of stays 9" x 10 3/4" Pitch across wide water spaces 13 1/2" Working pressures by rules 196<sup>lb</sup> Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 1 1/4" Centric Length as per rule 28 7/8" Distance apart 10" + 8" Number and pitch of Stays in each 2 @ 8 1/2"  
 Working pressure by rules 145<sup>lb</sup> 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 holes ✓ 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 ✓

Survey request form

No. 522 attached

The foregoing is a correct description,

A. H. Dalglish Manufacturer.

Dates During progress of work in shops - - - 1910. Sep 13. 24. 29. Oct. 8. 15. 20. 27 Is the approved plan of boiler forwarded herewith yes.  
 Survey while building During erection on board vessel - - - Nov 5. 9. 12 Total No. of visits 10.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The workmanship & materials are good. The boiler has been built under Special Survey, & will be fitted on board the vessel at Glasgow.

This boiler has been satisfactorily fitted and secured on above vessel.

Survey Fee ... 3 : 10 - When applied for. Monthly, as c.  
 Travelling Expenses (if any) £ : When received. 19

H. Foster  
Glasgow  
4-2-11

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

Committee's Minute

Glasgow 14 FEB. 1911

Assigned See minute on Gb. Report 29741.

FEB 17 1911

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Lloyd's Register  
Foundation