

# REPORT ON BOILERS.

No. 16109

WED. OCT. 11. 1911

Received at London Office

Date of writing Report 19 When handed in at Local Office 6<sup>th</sup> Oct<sup>r</sup> 1911 Port of Greenock

No. in Survey held at Port Glasgow Date, First Survey 23<sup>rd</sup> January 1911 Last Survey 30<sup>th</sup> Sept<sup>r</sup> 1911  
 Reg. Book. " " (Number of Visits 6) } Gross 3139  
 on the SCREW STEAMER "EMERALD WINGS" Tons } Net 1985

Master Halley Built at Port Glasgow By whom built Russell & Co. When built 1911  
 Engines made at Port Glasgow By whom made Clyde S.S. Eng. Co. Ltd. when made 1911  
 Boilers made at Port Glasgow By whom made Clyde S.S. Eng. Co. Ltd. when made 1911  
 Registered Horse Power Owners Wing Steamship Co. Ltd. Port belonging to London

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Steel Co. of Scotland Ltd.

Letter for record S Total Heating Surface of Boilers 1080 sq. ft. Is forced draft fitted No No. and Description of

Boilers One cylindrical boiler: Single Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 16/8/11

No. of Certificate 1019 Can each boiler be worked separately No Area of fire grate in each boiler 35 1/2 sq. ft. No. and Description of

safety valves to each boiler 2: Direct Spring Area of each valve 3.98 sq. in. Pressure to which they are adjusted 185 lb

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 About 14" Mean dia. of boilers 11' 0" Length 10' 6"

Material of shell plates Steel Thickness 15/16" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap Double long. seams Double Strap Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 1 1/2" 3 5/8"

Gap of plates or width of butt straps 15 5/8" Per centages of strength of longitudinal joint rivets 97 Working pressure of shell by plate 85.3

rules 184 lb Size of manhole in shell 16" x 12" Size of compensating ring Flanged Ring No. and Description of Furnaces in each

boiler 2: Plain Material Steel Outside diameter 40 3/4" Length of plain part 6' 4" Thickness of plates 2 1/2" 2 1/2"

Description of longitudinal joint Weld No. of strengthening rings None Working pressure of furnace by the rules 184 lb Combustion chamber

plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 1 1/8" Pitch of stays to ditto: Sides 8 1/4" x 8 1/2" Back 9" x 7 1/4"

Top 7 1/2" x 8 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 192 lb Material of stays Steel Diameter at

smallest part 1 5/8" Area supported by each stay 41 sq. in. Working pressure by rules 263 lb End plates in steam space: Material Steel Thickness 1"

Pitch of stays 16" x 15" How are stays secured Double Nuts Working pressure by rules 186 lb Material of stays Steel Diameter at smallest part 2 5/8" free

Area supported by each stay 240 sq. in. Working pressure by rules 186 lb Material of Front plates at bottom Steel Thickness 1" Material of

Lower back plate Steel Thickness 1 1/8" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 189 lb Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 8 5/8" Pitch across wide

water spaces 14" Working pressures by rules 182 lb: 257 lb Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 9" x 1 1/2" Length as per rule 32 5/8" Distance apart 8 1/2" Number and pitch of Stays in each 3: 7 1/2"

Working pressure by rules 184 lb 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

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,  
 THE CLYDE SHIP BUILDING & ENGINEERING CO. LIMITED,  
 John Brown, Manufacturer.  
 Director. yes

Dates of Survey } During progress of work in shops - - }  
 while building } During erection on board vessel - - - }  
See accompanying report

Is the approved plan of boiler forwarded herewith  
 Total No. of visits 6

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

This Boiler was built under special survey and the workmanship is good. On completion it was tested as required by the Rules for recommendations, see preceding sheet.

Survey Fee ... £ : } When applied for, 19.....  
 Travelling Expenses (if any) £ : } When received, 19.....

Wm. Austin  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 10 OCT. 1911 FRI. OCT. 13. 1911

Assigned See minute on accompanying machinery report

