

REPORT ON BOILERS.

No. 34060

WED. - 8. AUG. 1917

Received at London Office

Date of writing Report 21. 4. 1917 When handed in at Local Office 1917 Port of **GLASGOW**

No. in Survey held at **Glasgow** Date, First Survey **8. 3. 16** Last Survey **19. 4. 1917**

Req. Book. on the **Main Boilers for the S. S. "GARTHOLYDE"** (Number of Visits) Gross Tons } Net

Master Built at **Glasgow** By whom built **River Clyde SBC 08102** When built **1917**

H. P. Engines made at **Dumfries** By whom made **Cooper & Brigg, 204^a** When made **1914**

Boilers made at **Glasgow** By whom made **Dunsmuir & Jaeger (369)** When made **1917**

Registered Horse Power Owners **Messrs Blyth & Gylson Ltd** Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel **Colwell & Steel Co. Glasgow**

(Letter for record **R**) Total Heating Surface of Boilers **37347** Is forced draft fitted **No** No. and Description of Boilers **2 Single Ended** Working Pressure **180** Tested by hydraulic pressure to **360** Date of test **19. 4. 17**

No. of Certificate **13458** Can each boiler be worked separately **yes** Area of fire grate in each boiler **563/8** No. and Description of safety valves to each boiler **1 Pair Springloaded** Area of each valve **4.06 sq"** Pressure to which they are adjusted **185 lbs**

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 **10"** Mean dia. of boilers **14. 1/2"** Length **10-6"**

Material of shell plates **S** Thickness **1 1/2"** Range of tensile strength **28-32** Are the shell plates welded or flanged **No**

Descrip. of riveting: cir. seams **DR** long. seams **TR 10 BS** Diameter of rivet holes in long. seams **1 1/4"** Pitch of rivets **8 1/2"**

Top of plates or width of butt straps **1-6 3/4"** Per centages of strength of longitudinal joint rivets **91.4** plate **85.29** Working pressure of shell by rules **181** Size of manhole in shell **16 1/2"** Size of compensating ring **6 3/4 x 13 1/2"** No. and Description of Furnaces in each boiler **3 elongated** Material **S** Outside diameter **3-9"** Length of plain part **17 1/2"** Thickness of plates **17/32"**

Description of longitudinal joint **weld.** No. of strengthening rings **1** Working pressure of furnace by the rules **182** Combustion chamber plates: Material **S** Thickness: Sides **5/8"** Back **5/8"** Top **5/8"** Bottom **13/16"** Pitch of stays to ditto: Sides **4 7/8 x 8 3/4"** Back **8 3/4 x 8 3/4"**

Top **4 7/8 x 8 3/4"** If stays are fitted with nuts or riveted heads **DN** Working pressure by rules **94** Material of stays **Iron** Area at smallest part **199 2/3 sq"** Area supported by each stay **40 sq"** Working pressure by rules **210** End plates in steam space: Material **S** Thickness **15/32"**

Pitch of stays **19 3/8 x 18"** How are stays secured **DN** Working pressure by rules **186** Material of stays **S** Area at smallest part **5.78 sq"**

Area supported by each stay **335 sq"** Working pressure by rules **181** Material of Front plates at bottom **S** Thickness **1 1/2"** Material of Lower back plate **S** Thickness **29/32"** Greatest pitch of stays **15.8 3/4"** Working pressure of plate by rules **188** Diameter of tubes **3 1/2"**

Pitch of tubes **4 7/8 x 5"** Material of tube plates **S** Thickness: Front **1 1/32"** Back **29/32"** Mean pitch of stays **12 5/16"** Pitch across wide water spaces **14 1/2"** Working pressures by rules **181** Girders to Chamber tops: Material **Iron** Depth and thickness of girder at centre **8 x 1 1/2 (2)** Length as per rule **2.6 3/32"** Distance apart **8 3/4"** Number and pitch of Stays in each **3 at 4 7/8"**

Working pressure by rules **184** Steam dome: description of joint to shell **✓** % of strength of joint **7 1/2%**

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

UPERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____

Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____

Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

Survey request form **DUNSMUIR & JAEGER** The foregoing is a correct description, **James Fletcher** Director. Manufacturer.

No. **1857** attached to Gb. Rpt. No. **34051**

Dates of Survey During progress of work in shops - - - 1916 Mar. 8, 14 Apr. 6, 11, 18, 24, 29, 16, 18, 30, June 2, 16. Is the approved plan of boiler forwarded herewith in London Journal with building board vessel - - - July 6, 13, 14, 25, Aug. 3, 11, 15, Sep. 15, 15, 26, Oct. 2, 4, Dec. 11, 1917 Total No. of visits **34** **368** Gb. **37057**

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

These boilers have been built under special survey in accordance with the approved plan. The workmanship, material are of good quality. These boilers will be fitted on board in the Clyde. (Dupl. of B68 lbs Repl. No. 37057) The Boilers have now been securely fixed on board & their safety valves adjusted under steam.

Survey Fee £10 : 16 : When applied for 9/8/17 1917

Travelling Expenses (if any) £10 : 9 : 4 Paid 26/9/17 When received 9/8/17 1917

Committee's Minute **GLASGOW** **7 - AUG. 1917**

Assigned **Deferred** **W. Gordon. Michie** Engineer Surveyor to Lloyd's Register of Shipping.

Fred. O. Ferguson 6/10/17

Lloyd's Register Foundation