

# REPORT ON BOILERS.

No. 38991

Received at London Office

Date of writing Report **101** When handed in at Local Office **1.8.1919** Port of **Glasgow**  
 No. in Survey held at **Glasgow** Date, First Survey **4.2.18.** Last Survey **21.2.19** 1919  
 Reg. Book. on the Boilers no **B279.** S.S. **Backworth** (Number of Visits **13.**) Gross **2481.39**  
 Tons Net **1441.97**  
 Master Built at **Port Glasgow.** By whom built **Dunlop Bremner & Co Ltd** When built **1919.**  
 Engines made at **Port Glasgow.** By whom made **Dunlop Bremner & Co (No 335)** When made **1919.**  
 Boilers made at **Glasgow** By whom made **W Rowan & Co Ltd** When made **1919**  
 Registered Horse Power **262** Owners **The Robert Stanley Shipping Co Ltd** Port belonging to **Newcastle on Tyne**

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel **W Colvill Sons & Co**  
 Letter for record **S** Total Heating Surface of Boilers **4426 #** Is forced draft fitted **no** No. and Description of Boilers **Two Single ended** Working Pressure **180 lb** Tested by hydraulic pressure to **360 lb** Date of test **21.2.19**  
 No. of Certificate **14628** Can each boiler be worked separately **yes** Area of fire grate in each boiler **62 #** No. and Description of Safety valves to each boiler **Two direct spring** Area of each valve **8.290** 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 **2'-6"** Mean dia. of boilers **15'-6"** Length **10'-6"**  
 Material of shell plates **Steel** Thickness **1 1/4"** Range of tensile strength **28632 tons** Are the shell plates welded or flanged **no**  
 Descrip. of riveting: cir. seams **W Lap** long. seams **T.R.D.B.S.** Diameter of rivet holes in long. seams **1 5/8"** Pitch of rivets **8.75"**  
 Lap of plates or width of butt straps **19 1/2"** Per centages of strength of longitudinal joint rivets **92.3** Working pressure of shell by plate **85**  
 Rules **180** Size of manhole in shell **16 x 12** Size of compensating ring **and plate flanged** No. and Description of Furnaces in each boiler **3 corrugated** Material **Steel** Outside diameter **4'-1 7/8"** Length of plain part top **—** Thickness of plates crown **37"** bottom **64"**  
 Description of longitudinal joint **weld** No. of strengthening rings **—** Working pressure of furnace by the rules **184** Combustion chamber plates: Material **Steel** Thickness: Sides **11"** Back **32"** Top **11"** Bottom **16"** Pitch of stays to ditto: Sides **9 1/4 x 9 3/4"** Back **8 3/4 x 10 3/4"**  
 Top **9 3/4 x 9 3/4"** If stays are fitted with nuts or riveted heads **nuts** Working pressure by rules **180** Material of stays **Steel** Diameter at smallest part **2.07"** Area supported by each stay **90.50"** Working pressure by rules **205** End plates in steam space: Material **Steel** Thickness **1 3/8"**  
 Pitch of stays **24 x 22"** How are stays secured **nuts** Working pressure by rules **184** Material of stays **Steel** Diameter at smallest part **8.290"**  
 Area supported by each stay **463.50"** Working pressure by rules **186** Material of Front plates at bottom **Steel** Thickness **7/8"** Material of lower back plate **Steel** Thickness **15/16"** Greatest pitch of stays **13 3/4"** Working pressure of plate by rules **250** Diameter of tubes **3 1/4"**  
 Pitch of tubes **4 3/8 x 4 1/2"** Material of tube plates **Steel** Thickness: Front **1 1/32"** Back **13/16"** Mean pitch of stays **11 1/8"** Pitch across wide water spaces **14 1/2"** Working pressures by rules **187** Girders to Chamber tops: Material **Steel** Depth and thickness of order at centre **8 x (7/8")** Length as per rule **32"** Distance apart **9 1/4" v 8"** Number and pitch of Stays in each **Two 9 3/4"**  
 Working pressure by rules **182** 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  
 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,  
 David Rowan & Co Ltd Manufacturer.  
 Dates During progress of work in shops: **1918. July 4. July 24. 29. Aug 22. Sept. 11.** Is the approved plan of boiler forwarded herewith **yes**  
 while building: **Oct 1. 16. 20. Nov. 21. Dec. 19.**  
 1919. **Jan 8. July 11. 21.** Total No. of visits **13**

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) **The Boilers have been built under special survey, the material and workmanship are good. These boilers have been efficiently fitted on board the vessel.**

Survey Fee **£ 8 : 5/6** When applied for, **on G.R. R. 17508**  
 Travelling Expenses (if any) **£ :** When received, **3.10.1919**  
 J. Easthope & Co. Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **GLASGOW 6 AUG 1919**  
 assigned **Deferred.** See G.R. R. 17508 **GLASGOW 19 AUG 1919**  
 Lloyd's Register Foundation