

REPORT ON BOILERS.

No. 42800

Received at London Office **WED. JUN. 13 1923**
 Date of writing Report **7th June 1923** When handed in at Local Office **9th June, 1923** Port of **Glasgow**
 No. in Survey held at **Glasgow** Date, First Survey **15. 1. 1921** Last Survey **7. 6. 1923**
 Reg. Book. on the **Boiler N^o: B 305.** S.S. **Howarna.** (Number of Visits **14**) } Gross
 Master **Port-Glasgow** Built at **Port-Glasgow** By whom built **Dunlop Bremner & Co., Ltd. (N^o: 243).** When built
 Engines made at **Port-Glasgow** By whom made **Dunlop Bremner & Co., Ltd. (N^o: 243).** when made
 Boilers made at **Glasgow** By whom made **D. Rowan & Co. Ltd. B305** when made **1923.**
 Registered Horse Power _____ Owners _____ Port belonging to _____

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

(Letter for record **6**) Total Heating Surface of Boilers **5925 sq ft** Is forced draft fitted **no** No. and Description of Boilers **Three Ringle Ended** Working Pressure **180 lbs.** Tested by hydraulic pressure to **320 lbs.** Date of test **7-6-23**

No. of Certificate **16272** Can each boiler be worked separately **- yes** Area of fire grate in each boiler **55 sq ft** No. and Description of safety valves to each boiler **- 2 Spring** Area of each valve **- 5.94 sq in** 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 **✓ -**

Smallest distance between boilers or uptakes and bunkers or woodwork **- 3-0** Mean dia. of boilers **13-9 3/4** Length **11-6**

Material of shell plates **Steel** Thickness **1 1/8** Range of tensile strength **28/32 ton** Are the shell plates welded or flanged **no**

Description of riveting: cir. seams **D.R. Lap** long. seams **T.R.O.B.S.** Diameter of rivet holes in long. seams **1 3/16** Pitch of rivets **8 3/8**

Gap of plates or width of butt straps **18** Per centages of strength of longitudinal joint **87.8** Working pressure of shell by rules **182 lbs** Size of manhole in shell **0. End Plate 16 x 12** Size of compensating ring **None - End Plate** No. and Description of Furnaces in each boiler **3 Deighton** Material **Steel** Outside diameter **3-8 1/2** Length of plain part **None** Thickness of plates **17 1/2**

Description of longitudinal joint **weld** No. of strengthening rings **None** Working pressure of furnace by the rules **185 lbs.** Combustion chamber

Plates: Material **Steel** Thickness: Sides **1/16** Back **23/32** Top **1/16** Bottom **1/16** Pitch of stays to ditto: Sides **8 1/2 x 10 3/8** Back **9 x 10 1/2**

Stays are fitted with nuts or riveted heads **Nuts** Working pressure by rules **181** Material of stays **Steel** Diameter at supported by each stay **94.5** Working pressure by rules **197 1/2** End plates in steam space: Material **Steel** Thickness **1 5/8**

Stays secured **D. Nuts** Working pressure by rules **182** Material of stays **Steel** Diameter at smallest part **7.06**

Working pressure by rules **181 1/2** Material of Front plates at bottom **Steel** Thickness **5/16** Material of

Lower back plate **12** Greatest pitch of stays **13 1/8 x 9** Working pressure of plate by rules **180 1/2** Diameter of tubes **3 1/2**

Pitch of tubes **4 3/4 x 4 3/4** Material of tube plates **Steel** Thickness: Front **5/16** Back **3/4** Mean pitch of stays **9 1/2** Pitch across wide

Water spaces **14 1/2** Working pressures by rules **182 lbs.** Girders to Chamber tops: Material **Steel** Depth and thickness of

Girders at centre **9 3/4 x 20 7/8** Length as per rule **2-11 1/2** Distance apart **C. 10 1/2 W. 9 3/8** Number and pitch of Stays in each **308 1/2**

Working pressure by rules **W. 197** 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

Plates **-** 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 **-**

Annual Survey Request **The foregoing is a correct description, for David Rowan & Co Ltd Manufacturer. Asch. W. Greerison**

Dates of Survey: During progress of work in shops **1921 Jan 15 Feb 16 Mar 8 Apr 14 25 May 30 1923 Feb 13** Is the approved plan of boiler forwarded herewith **Yes.**
 while during erection on board vessel **Mar 14 21 27 Apr 18 May 18 23 Jun 7** Total No. of visits **14**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **These boilers have been constructed under Special Survey in accordance with the Rules and approved plan; the materials and workmanship are good; the boilers are a duplicate of N^o: 295, Lib. Rpt. N^o: 40039. The bottom are to be fitted on board the vessel at Port-Glasgow**

Survey Fee **£ 32 : 5 : -** When applied for **12 6 19 23**
 Travelling Expenses (if any) **£ : : -** When received **1924 4 24**
W. Forster
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **GLASGOW 12 JUN 1923**
 Assigned **TRANSMIT TO LONDON**
GLASGOW - 8 JUL 1924
W. Greerison
 Lloyd's Register of British and Foreign Shipping
WED. 11 DEC 1928
FRI. 1 NOV 1924
FRI. 4 MAR 1927
FRI. 1 JAN 1920
FRI. 4 DEC 1925
FRI. 9 MAR 1928

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