

REPORT ON BOILERS.

No. 31592.

Received at London Office

WED. JUN. 26. 1912

Date of writing Report 1912 When handed in at Local Office 22.6.1912 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 5.10.11 Last Survey 29.1.1912

Reg. Book. on the Boilers 2 - B 170 T.S.S. "Itatinga" (Number of Visits 13) Gross 2114 Tons Net 1181

Master R. E. McNeill Built at Troon By whom built Ailsa S. Co. Ltd (No. 31) When built 1912

Engines made at Troon By whom made Ailsa S. Co. Ltd When made 1912

Boilers made at Glasgow By whom made David Rowan & Co. When made 1912

Registered Horse Power 304 Owners Companhia Nacional de Navegacao Costeira Port belonging to Rio de Janeiro

MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel Wm Beardmore & Co Ltd

(Letter for record (5)) Total Heating Surface of Boilers 5118 ⁸⁸⁷ \$ (Also Aut. Pl. 847 \$) Is forced draft fitted no No. and Description of Boilers Two Single Ended Working Pressure 180 Tested by hydraulic pressure to 360 lbs Date of test 29/1/12

No. of Certificate 11393 Can each boiler be worked separately yes Area of fire grate in each boiler 67.5 ^{sq} No. and Description of safety valves to each boiler 2 spring loaded Area of each valve 7.06 ^{sq} Pressure to which they are adjusted 185 lbs.

Are they fitted with casing 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 2-3 ⁱⁿ Mean dia. of boilers 15-9 ⁱⁿ Length 11-6 ⁱⁿ

Material of shell plates slit Thickness 1 1/4 ⁱⁿ Range of tensile strength 28.45 ^{to 32} Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams D. R. L. long. seams O. B. S. Diameter of rivet holes in long. seams 1 5/16 ⁱⁿ Pitch of rivets 9 ⁱⁿ

Lap of plates or width of butt straps 19 1/2 ⁱⁿ Per centages of strength of longitudinal joint rivets 89.6 plate 85.41 Working pressure of shell by rules 180 Size of manhole in shell 16 x 12 Size of compensating ring Hanged No. and Description of Furnaces in each boiler 3 Morrison Material slit Outside diameter 4-2 5/32 Length of plain part top Thickness of plates 37 1/4 ⁱⁿ bottom 37 1/4 ⁱⁿ

Description of longitudinal joint weld No. of strengthening rings — Working pressure of furnace by the rules 180 Combustion chamber plates: Material slit Thickness: Sides 1 1/16 ⁱⁿ Back 2 1/32 ⁱⁿ Top 1 1/16 ⁱⁿ Bottom 3/4 ⁱⁿ Pitch of stays to ditto: Sides 9 x 10 ⁱⁿ Back 7 3/4 x 10 1/4 ⁱⁿ

Top 9 x 10 ⁱⁿ If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181 Material of stays slit Diameter at smallest part 2.07 ⁱⁿ Area supported by each stay 90 ^{sq} Working pressure by rules 207 End plates in steam space: Material slit Thickness 1 5/16 ⁱⁿ

Pitch of stays 20 5/8 x 20 1/2 ⁱⁿ How are stays secured D. nuts Working pressure by rules 183 Material of stays slit Diameter at smallest part 7.06 ⁱⁿ

Area supported by each stay 400 ^{sq} Working pressure by rules 180 Material of Front plates at bottom slit Thickness 7/8 ⁱⁿ Material of lower back plate slit Thickness 1 3/16 ⁱⁿ Greatest pitch of stays 13 13/16 ⁱⁿ Working pressure of plate by rules 182 Diameter of tubes 3 1/4 ⁱⁿ

Pitch of tubes 4 3/8 ⁱⁿ Material of tube plates slit Thickness: Front 1 1/32 ⁱⁿ Back 2 5/32 ⁱⁿ Mean pitch of stays 10 5/16 ⁱⁿ Pitch across wide water spaces 14 1/4 ⁱⁿ Working pressures by rules 180 Girders to Chamber tops: Material slit Depth and thickness of girder at centre 10 1/4 x 7 7/8 x 2 Length as per rule 37 9/16 ⁱⁿ Distance apart 10 ⁱⁿ Number and pitch of Stays in each 3 at 9 ⁱⁿ

Working pressure by rules 180 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately

Survey request form

No. 842 attached

The foregoing is a correct description, for David Rowan & Co Manufacturer.

Dates of Survey: During progress of work in shops - - 1911. Oct. 5. 9. 18. 20. Nov. 15. 20. 22. 27. Is the approved plan of boiler forwarded herewith same as B 169.

while building: During erection on board vessel - - - 1912. Jan. 7, 17, 29. Total No. of visits 13.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under Special Survey & is of good materials & workmanship. It is to be fitted on board at Troon. These boilers have been satisfactorily fitted on board the above vessel

Including Aut. Bk.

Survey Fee £ 13. 6 : } When applied for, 22.1.1912

Travelling Expenses (if any) £ : : } When received, 1.3.1912

H. Foster
Glasgow
14.6.12

H. Santner-Smith
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 25 JUN. 1912

Assigned See accompanying machinery report.

Any Boiler removed to 31.

