

# REPORT ON BOILERS.

No. 33871.

Received at London Office FRI. JUN. 26 1914.

Date of writing Report 15/4/1914 When handed in at Local Office 15/4/1914 Port of GLASGOW  
 No. in Survey held at Glasgow Date, First Survey 14. 11. 13 Last Survey 8. 4. 1914  
 Reg. Book. 16/14 on the S.S. Santa Isabel (Number of Visits 20.) Gross 2023 Tons Net 1211  
 Master A. S. Graham Built at Port Glasgow By whom built Dunlop Breunor & Co (307) When built 1914  
 Engines made at Port Glasgow By whom made ditto When made 1914  
 Boilers made at Glasgow By whom made Dunrobin, Jackson & Co 323 When made 1914  
 Registered Horse Power \_\_\_\_\_ Owners Santa Clara S.S. Co. Ltd. Port belonging to Liverpool.

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY~~ OR DONKEY. — Manufacturers of Steel Robville, Spencer, Beardmore

Letter for record S Total Heating Surface of Boilers 7900 Is forced draft fitted No No. and Description of Boilers one single ended  
 No. of Certificate 12648 Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 8. 4. 14  
 Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler 27 No. and Description of Safety valves to each boiler \_\_\_\_\_  
 Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_  
 Are they fitted with easing gear \_\_\_\_\_ 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 \_\_\_\_\_ Mean dia. of boilers 10. 0 5/8 Length 9. 0  
 Material of shell plates S Thickness 5/8 Range of tensile strength 28/32 Are the shell plates welded or flanged \_\_\_\_\_  
 Descrip. of riveting: cir. seams DR long. seams TRLap Diameter of rivet holes in long. seams 1" Pitch of rivets 4 1/8"  
 Spacing of plates or width of butt straps 4" Per centages of strength of longitudinal joint rivets 77-6 Working pressure of shell by rules 102  
 Size of manhole in shell 16 x 12 Size of compensating ring 8 1/2 No. and Description of Furnaces in each boiler 2 plain  
 Material S Outside diameter 3-1 1/8 Length of plain part 6-5 Thickness of plates crown 9/16 bottom 13/16  
 Description of longitudinal joint weld. No. of strengthening rings \_\_\_\_\_ Working pressure of furnace by the rules 106 Combustion chamber  
 Material S Thickness: Sides 17/32 Back 9/16 Top 17/32 Bottom 23/32 Pitch of stays to ditto: Sides 8 3/4 x 9 Back 9 x 9 3/4  
 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 119 Material of stays S Diameter at smallest part 22. 169 Area supported by each stay 84. 75 Working pressure by rules 110 End plates in steam space: Material S Thickness 13/16  
 How are stays secured DN Working pressure by rules 104 Material of stays S Diameter at smallest part 3. 03  
 Area supported by each stay 276. 5 Working pressure by rules 114 Material of Front plates at bottom S Thickness 13/16 Material of cover back plate S  
 Thickness 13/16 Greatest pitch of stays 14 1/2 x 9 Working pressure of plate by rules 170 Diameter of tubes 3  
 Material of tube plates S Thickness: Front 13/16 Back 1 1/16 Mean pitch of stays 12 1/2 Pitch across wide  
 Working pressures by rules 120 Girders to Chamber tops: Material Iron Depth and thickness of  
 Diameter 6. 3/4 (2) Length as per rule 2-1 Distance apart 9 1/4 Number and pitch of Stays in each 2 at 8 3/4  
 Working pressure by rules 117 Superheater or Steam chest; how connected to boiler \_\_\_\_\_ Can the superheater be shut off and the boiler worked  
 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 \_\_\_\_\_  
 Strengthened 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,  
DUNROBIN & JACKSON, Limited. Manufacturer.

During progress of work in shops - - - See accompanying Report.  
 During erection on board vessel - - -  
 Is the approved plan of boiler forwarded herewith \_\_\_\_\_  
 Total No. of visits \_\_\_\_\_

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler has been built under special Survey in accordance with the approved plan & the workmanship & material are of good quality. This Boiler is being shipped to Port Glasgow at which it will be fitted on board.

Survey Fee \_\_\_\_\_ When applied for \_\_\_\_\_ 191  
 Travelling Expenses (if any) \_\_\_\_\_ When received \_\_\_\_\_ 191

W. Gordon Munday  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

