

REPORT ON BOILERS.

No. 33871

Received at London Office FRI. JUN. 26 1914.

Date of writing Report 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

Req. Book. on the s/s. "Santa Isabel" (Number of Visits 20.) Gross 2023 Tons Net 1211

Master A. S. Graham Built at Glasgow By whom built Dunsmuir & Jackson Ltd (307) When built 1914

Engines made at Glasgow By whom made ditto When made 1914

Boilers made at Glasgow By whom made Dunsmuir & Jackson Ltd 1323 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 Colville & Co. Ltd.

Letter for record S Total Heating Surface of Boilers 3990^{sq} 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 8. 4. 14

No. of Certificate 12647 Can each boiler be worked separately Area of fire grate in each boiler 47^{sq} ft 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 14. 7 1/4" Length 10'-6"

Material of shell plates S Thickness 1 1/4" Range of tensile strength 28/32 Are the shell plates welded or flanged

Description of riveting: cir. seams DR long. seams TRIDBS Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 3/4"

Width of butt straps 1'-6 3/4" Per centages of strength of longitudinal joint rivets 88.7% plate 85.7% Working pressure of shell by rules 181 Size of manhole in shell 16x12 Size of compensating ring 30" dia

No. and Description of Furnaces in each boiler 3 Corrugated Material S Outside diameter 3'-10" Length of plain part top Thickness of plates crown 3 5/16" bottom

Description of longitudinal joint mild No. of strengthening rings Working pressure of furnace by the rules 195 Combustion chamber plates: Material S Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 7/8" Pitch of stays to ditto: Sides 10x9 Back 9 3/4 x 9 1/8

Top 10x9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 182 Material of stays S Area Diameter at smallest part 98.231 Area supported by each stay 90^{sq} Working pressure by rules 195 End plates in steam space: Material S Thickness 13/16"

Pitch of stays 18 1/4 x 19 1/2 How are stays secured DN Working pressure by rules 181 Material of stays S Area Diameter at smallest part 6.33^{sq}

Area supported by each stay 355^{sq} Working pressure by rules 186 Material of Front plates at bottom S Thickness 1" Material of lower back plate S Thickness 7/8" Greatest pitch of stays 14 3/8 x 9 1/8 Working pressure of plate by rules 195 Diameter of tubes 3"

Pitch of tubes 4 1/4 x 4 1/8 Material of tube plates S Thickness: Front 1" Back 27/32 Mean pitch of stays 12 1/2 Pitch across wider spaces 14 Working pressures by rules 184 Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 8x1 (2) Length as per rule 2. 7 1/32 Distance apart 9" Number and pitch of Stays in each 2 at 10"

Working pressure by rules 184 Superheater or Steam chest: how connected to boiler Can the superheater be shut off and the boiler worked separately

Diameter	Length	Thickness of shell plates	Material	Description of longitudinal joint	Diam. of rivets

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, DUNSMUIR & JACKSON, Limited.

Manufacturer.

During progress of survey work in shops 1913. Nov. 14. 20. 26 Dec 2. 8. 17. 24. 26. 29

During erection on board vessel 1914. Jan 17. 19. 28. 30. Feb 12. 25. Mar 5. 17. 31. 9. 8

Total No. of visits 20

Is the approved plan of boiler for certified Despatch? Yes

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 are being supplied to Port Glasgow & when they will be fitted on board.

Survey Fee £13 with charge on Drawing Paper When applied for 1914

Travelling Expenses (if any) £ When received 1914

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

Committee's Minute

Signed

