

REPORT ON BOILERS.

No. 39313

Received at London Office

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Date of writing Report 1-11-19 When handed in at Local Office 1-11-19 Port of Glasgow

No. in Survey held at Paisley Date, First Survey 15 April 1919 Last Survey 26 Sept. 1919

Reg. Book. on the Single ended boilers for S/S "SAINT BARCHAN" (Number of Visits 11) Tons } Gross
Net

Master Built at Bowling By whom built Scott & Sons (283) When built 1919

Engines made at Paisley By whom made Fishers Ltd (220) When made 1919

Boilers made at Paisley By whom made A. F. Craig & Co Ltd (646) When made 1919

Registered Horse Power _____ Owners _____ Port belonging to _____

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

Letter for record S Total Heating Surface of Boilers 1388 sq ft Is forced draft fitted no No. and Description of Boilers one single ended Working Pressure 130 Tested by hydraulic pressure to 260 Date of test 26.9.19

No. of Certificate 14909 Can each boiler be worked separately ✓ Area of fire grate in each boiler 42 sq ft No. and Description of Safety valves to each boiler 2 Spring loaded Area of each valve 5.939 sq in Pressure to which they are adjusted 135

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 4'-0" Mean dia. of boilers 12'-6" Length 10'-0"

Material of shell plates Steel Thickness 25/32" Range of tensile strength 26/30 28/32 Are the shell plates welded or flanged no

Description of riveting: cir. seams D.R. long. seams T.R.D.B.S Diameter of rivet holes in long. seams 15/16" Pitch of rivets 1 1/2"

Gap of plates or width of butt straps 14" Per centages of strength of longitudinal joint rivets 84.58 plate 84.5 Working pressure of shell by rules 135

Size of manhole in shell 16" x 12" Size of compensating ring Inch No. and Description of Furnaces in each boiler two plain Material Steel Outside diameter 3'-9" Length of plain part top ✓ bottom ✓ Thickness of plates crown 2 1/2" bottom 2 1/2"

Description of longitudinal joint weld No. of strengthening rings ✓ Working pressure of furnace by the rules 134 Combustion chamber plates: Material S Thickness: Sides 19/32" Back 3 1/4" Top 19/32" Bottom 1 1/8" Pitch of stays to ditto: Sides 10" x 9 1/2" Back 9 1/4" x 9 1/4"

Area supported by each stay 104.5 Working pressure by rules 130 Material of stays S Diameter at smallest part 1.48" Area supported by each stay 104.5 Working pressure by rules 131 End plates in steam space: Material S Thickness 6 1/4"

How are stays secured D. nuts & W Working pressure by rules 140 Material of stays S Diameter at smallest part 3.85" Area supported by each stay 306 sq in Working pressure by rules 131 Material of Front plates at bottom S Thickness 5 1/4" Material of lower back plate S Thickness 13/16" Greatest pitch of stays 14" Working pressure of plate by rules 146 Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates S Thickness: Front 5 1/4" Back 3 1/4" Mean pitch of stays 13 1/2" x 9" Pitch across wide

Inter spaces 14" Working pressures by rules 145 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 1/2" x 1/2" (2) Length as per rule 2'-4 3/4" Distance apart 9 1/4" Number and pitch of Stays in each 2 @ 9"

Working pressure by rules 144 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

Survey request form 2314 attached

The foregoing is a correct description,
W. F. Murray Manufacturer.

Dates During progress of 1919. Apr. 15. 29. May 16. 30. June 23 July 9 Aug 5 Is the approved plan of boiler forwarded herewith Yes.
Survey work in shops - - Sept 11. 16. 23 26. Total No. of visits 11.
While During erection on
Building board vessel - - -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been built under Special Survey in accordance with the approved plan and the Rules of the Society. The workmanship and materials used are good. The boiler has now been securely fitted on board the vessel and tried under steam with satisfactory results.

Survey Fee ... £ See MacLuf. When applied for, 191
Travelling Expenses (if any) £ Report. When received, 191

W. F. Murray
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 11 NOV 1919

Signed See accompanying machinery report

