

REPORT ON BOILERS.

No. 31953.

Received at London Office

WED OCT 15 1912
WED JAN 22 1913

Date of writing Report 4. 10 1912 When handed in at Local Office 12. 10. 1912 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 28. 5. 12 Last Survey 1. 10. 1912
 Reg. Book. on the Sp. Barnalea (Number of Visits 20) Tons } Gross 579
 Net 232

Master Built at Boulogne By whom built Scott & Son (241) When built 1912
 Engines made at Glasgow By whom made Aitken & Son (7076) When made 1912
 Boilers made at ditto By whom made Dunsmuir & Jackson (432) When made 1912
 Registered Horse Power Owners John Kelly & Co Port belonging to Belfast

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

(Letter for record S) Total Heating Surface of Boilers 19384 Is forced draft fitted No No. and Description of Boilers one single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 1-10-12

No. of Certificate 11795 Can each boiler be worked separately Area of fire grate in each boiler 60-5 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 10 3/16 Length 10-6

Material of shell plates S Thickness 3/16 Range of tensile strength 28/32 Are the shell plates welded or flanged ✓

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

width of butt straps 1-6 7/8 Per centages of strength of longitudinal joint rivets 85-45 Working pressure of shell by rules 181 Size of manhole in shell 16 x 12 Size of compensating ring 9 7/8 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 9 1/16 bottom ✓

Description of longitudinal joint weld No. of strengthening rings ✓ Working pressure of furnace by the rules 184 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 9 1/2 x 9 Back 9 1/2 x 9 1/2

Top 9 1/2 x 9 If stays are fitted with nuts or riveted heads 9 nuts Working pressure by rules 182 Material of stays S Diameter at smallest part 3.03 Area supported by each stay 90 Working pressure by rules 195 End plates in steam space: Material S Thickness 1 1/4

Pitch of stays 7 1/2 x 20 1/2 How are stays secured DN Working pressure by rules 194 Material of stays S Diameter at smallest part 6.9

Area supported by each stay 35.5 Working pressure by rules 199 Material of Front plates at bottom S Thickness 1 1/64 Material of Lower back plate S Thickness 29/32 Greatest pitch of stays 14 1/2 x 9 1/2 Working pressure of plate by rules 200 Diameter of tubes 3 1/4

Pitch of tubes 4 1/2 x 4 9/16 Material of tube plates S Thickness: Front 1 1/64 Back 3/16 Mean pitch of stays 1 1/8 Pitch across wide water spaces 14 1/4 Working pressures by rules 191 Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 9. x 7 1/8 (2) Length as per rule 2-7 1/2 Distance apart 9 Number and pitch of Stays in each 2 at 9 1/2 x 16

Working pressure by rules 185 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 rivet
holes	Pitch of rivets	Working pressure of shell by rules	Diameter of flue	Material of flue plates	Thickness

Distance between rings	Working pressure by rules	End plates: Thickness	How stayed
If stiffened with rings	Working pressure of end plates	Area of safety valves to superheater	Are they fitted with easing gear

Survey request form

No. 1012 attached

The foregoing is a correct description,

James Fletcher Manufacturer.

Dates of Survey } During progress of 1912-May 28, June 3-10-12-17-19-26. Is the approved plan of boiler forwarded herewith ✓
 while building } During erection on board vessel July 1-8-25, Aug. 1-16-21-29, Sept. 2-9-11-16-24, Oct. 1. Total No. of visits 20

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 will be fitted on board in Glasgow.

Survey Fee ... £ 6 : 9 : } When applied for, 14. 10. 1912.
 Travelling Expenses (if any) £ : : } When received, 16. 10. 1912.

Wm Gordon Muir
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 15 OCT. 1912 GLASGOW 21 JAN. 1913

Assigned Transmit to London See minute on this Rpt. No. 32255.

