

REPORT ON BOILERS.

No. 79761

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Date of writing Report 29 OCT 1919 When handed in at Local Office 29 OCT 1919 Port of LIVERPOOL
No. in Survey held at Birkenhead Date, First Survey Nov 29/18 Last Survey Dec 28 1919
Reg. Book. 6 on the Boilers for Messrs. McAlister & Baxter's Engines No. 937 (Number of Visits 49) Gross Tons Net Tons
Built at By whom built When built
Engines made at Glasgow By whom made McAlister & Baxter Cooper & Greig When made
Boilers made at Birkenhead By whom made Hammell, Laird & Co. Ltd. 2008 When made 1919
Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Plates—H. Beardmore & Co. Ltd. Stays—J. Colville & Sons
Letter for record S) Total Heating Surface of Boilers 2886 sq. ft. Is forced draft fitted No. and Description of
Boilers 2 Cylindrical Multitubular Single Ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29/5/19
of Certificates 2071, 2072 Can each boiler be worked separately Area of fire grate in each boiler 48.56 sq. ft. No. and Description of
Safety valves to each boiler 2 Spring loaded 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 13'0" Length 10'6"
Material of shell plates Steel Thickness 1/4" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No
Description of riveting: cir. seams DR-Lap long. seams TR-double straps Diameter of rivet holes in long. seams 1/4" Pitch of rivets 8"
Pitch of plates or width of butt straps 16 3/4" Per centages of strength of longitudinal joint rivets 86.97 Working pressure of shell by
rules 181.8 lbs Size of manhole in shell 16" x 12" Size of compensating ring McAlister plate 85.93
Boiler 3 Corrugated Material Steel Outside diameter 3'5 1/2" Length of plain part top Thickness of plates crown 1/2"
Description of longitudinal joint Welded No. of strengthening rings Working pressure of furnace by the rules 183 lbs Combustion chamber
Material Steel Thickness: Sides 1/4" Back 5/8" Top 1/4" Bottom 1/4" Pitch of stays to ditto: Sides 8 1/2" x 8 1/2" Back 8 1/2" x 8 1/2"
If stays are fitted with nuts or riveted heads nuts, except in Working pressure by rules 181 lbs Material of stays Steel Area Diameter at
smallest part 1.73 sq. in. Area supported by each stay 74.37 sq. in. Working pressure by rules 156 lbs End plates in steam space: Material Steel Thickness 1/4"
Pitch of stays 22 1/2" x 17 1/2" How are stays secured double nuts & washers Working pressure by rules 181 lbs Material of stays Steel Area Diameter at smallest part 7.24 sq. in.
Area supported by each stay 395.93 sq. in. Working pressure by rules 190 lbs Material of Front plates at bottom Steel Thickness 1/4" Material of
Front back plate Steel Thickness 3/8" Greatest pitch of stays 13" x 8 1/2" Working pressure of plate by rules 183 lbs Diameter of tubes 3 1/2" dia.
Pitch of tubes 4 1/2" x 4 7/8" Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 13 1/2" x 9" Pitch across wide
spaces 1/4" Working pressures by rules 183 lbs Girders to Chamber tops: Material Steel Depth and thickness of
Girders at centre 2-8 1/2" x 1 1/2" Length as per rule 30 1/2" Distance apart 8 3/4" Number and pitch of Stays in each 2-8 1/2"
Working pressure by rules 184 lbs 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
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
Fitted 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,

J. W. D. Laird Manufacturer.

During progress of survey 1918 Nov 29, Dec 3, 6, 10, 13, 17, 19, 24, 1919 Jan 6, 10, 14, 15, 20, 24, Is the approved plan of boiler forwarded herewith Yes
work in shops - 27, 31, Feb 4, 12, 18, 26, Mar 4, 7, 11, 15, 27, 28, 26, Apr 1, 7, 10
During erection on board vessel 14, 17, 24, 29, 30, May 5, 18, 19, 22, 26, 29, June 3, 5, 11, 12, Total No. of visits 49

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under Special Survey in accordance with the approved plan and the Secretary's letter (E) of the 2nd October 1918. The materials and workmanship are of good quality. When tested with water to twice the working pressure, the boilers were found tight and satisfactory in every respect. These boilers have been sent to Glasgow but have not yet been allocated to any vessel.

Survey Fee ... £ 9 : 12 : When applied for, 29 OCT 1919
Shipping & Travelling Expenses (if any) £ : : When received, 5 DEC 1919
B. G. Bedford & Son & Co. Ltd. Engineer Surveyors to Lloyd's Register of British and Foreign Shipping.

Committee's Minute
Transmit to London.
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FRI JAN 2 - 1920
FRI MAY 14 1920
Lloyd's Register Foundation