

## REPORT ON BOILERS.

No. 34443

Received at London Office

Date of writing Report 27<sup>th</sup> Apr 1918 When handed in at Local Office 1918 Port of Glasgow 24.3-OCT. 1918  
 No. in Survey held at Glasgow Date, First Survey 21<sup>st</sup> June 1917 Last Survey 22<sup>nd</sup> April 1918  
 Reg. Book. John Lipper (Number of Visits 61) Gross Tons {  
 on the Marine Boiler designated No 3647 for Admiralty Strathclyde Hauler Net  
 Master Glasgow Built at Glasgow By whom built Reddie Graham & Co Ltd When built 1918  
 Engines made at Glasgow By whom made Fairfield Shipbuilding Co Ltd When made 1918  
 Boilers made at Glasgow By whom made James Neilson & Son Ltd When made 1918  
 Registered Horse Power 45 Owners H.M. Government Port belonging to -

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

(Letter for record S) Total Heating Surface of Boilers 13475 sq. ft. Is forced draft fitted no No. and Description of Boilers One Single ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 28/3/18

No. of Certificate 14188 Can each boiler be worked separately one Area of fire grate in each boiler 395 sq. ft. No. and Description of safety valves to each boiler Pair Spring loaded Area of each valve 5.93 sq. in. Pressure to which they are adjusted 18.5 lbs

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

Material of shell plates Steel Thickness 1 3/8" Range of tensile strength 28/32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams Lap & R long. seams Butt Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 1/8"

Lap of plates width of butt straps 16 1/4" Per centages of strength of longitudinal joint rivets 88.6 Working pressure of shell by rules 181 lbs Size of manhole in shell 16" x 12" Size of compensating ring 8" x 1" No. and Description of Furnaces in each boiler Three plain Material Steel Outside diameter 3'-0 1/2" Length of plain part 6'-6 1/2" Thickness of plates crown 3/4" bottom 7/8"

Description of longitudinal joint held No. of strengthening rings 3 x 5/8" Working pressure of furnace by the rules 189 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 7/8" Top 7/8" Bottom 7/8" Pitch of stays to ditto: Sides 9" x 8" Back 9" x 8"

Top Girders stays are fitted with nuts or riveted heads nuts Working pressure by rules 186 lbs Material of stays Steel Area Diameter at smallest part 1 1/8" Area supported by each stay 72 sq. in. Working pressure by rules 186 lbs End plates in steam space: Material Steel Thickness 1 1/8"

Pitch of stays 18 x 18 How are stays secured Welded Working pressure by rules 186 lbs Material of stays Steel Area Diameter at smallest part 6 1/8"

Area supported by each stay 324 sq. in. Working pressure by rules 186 lbs Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 1 1/8" Greatest pitch of stays 14 1/4" x 8" Working pressure of plate by rules 260 lbs Diameter of tubes 3 1/2"

Pitch of tubes 4 1/4" Material of tube plates Steel Thickness: Front 1" Back 27/32" Mean pitch of stays 10 3/4" Pitch across wide water spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 1/4" x 7 1/8" x 2 Length as per rule 28 1/2" Distance apart 9 1/2" Number and pitch of Stays in each Two at 8 1/2"

Working pressure by rules 180 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 holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If 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

The foregoing is a correct description,

For JAMES NEILSON &amp; SON, Ltd.

Manufacturer.

Arch BallerIs the approved plan of boiler forwarded herewith yes Wrong plan sentTotal No. of visits 61

Dates of Survey

During progress of work in shops - - -

During erection on board vessel - - -

1914 June 21. 26 July 5. 26. Aug 1. 8. 10. 21. 27. 30. Sept 3. 4. 7. 8. 13. 17

19. 21. 25. 28. Oct 2. 8. 11. 22. 29. Nov 1. 6. 8. 14. 16. 19. 23. 24 Dec 5. 6. 10

11. 13. 24. 28. 1915 Jan 10. 17. 28. Feb 4. 6. 8. 11. 13. 23. 26. Mar 4. 7. 13. 15. 18

20. 22. 26. 28. 29. 30. 31. 1916

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## GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

This boiler has been built under special survey in accordance with the approved plan. The workmanship & material is good and the boiler in my opinion suitable for a working pressure of 180 lbs per square inch. The boiler is being fitted on board at Glasgow. The boiler has just been securely fitted on board & its safety valves adjusted under steam. W.D. Ferguson 30/9/18

Survey Fee ... £ 6 : 2 : } When applied for, 3. 5. 1918  
 Travelling Expenses (if any) £ : : } When received, 11/ 57 1918

Robert Hegor  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

No action

GLASGOW. 2-OCT 1918

TUE. 26 SEP. 1922

Lloyd's Register  
 Foundation

006489-006504-0107