

Wm R. Stephenson & Co. 55 N° 115 Boiler No 591

Rpt. 5a.

# REPORT ON BOILERS.

No. 54134

Date of writing Report Dec 27<sup>th</sup> 1907 When handed in at Local Office 17 JAN 1908 Received at London Office SAT. 18 JAN 1908  
No. in Survey held at Newcastle Port of Newcastle-on-Tyne  
Reg. Book. 27 Sup on the Steel 55 "NORA." Date, First Survey Aug 26 Last Survey Dec 23<sup>rd</sup> 1907  
Master W. G. James. Built at Newcastle By whom built R. Stephenson & Co Ltd When built 1907  
Engines made at Hartlepool By whom made Richardson Westgarth & Co. when made 1907  
Boilers made at Newcastle By whom made R. Stephenson & Co Ltd. when made 1907  
Registered Horse Power 314. Owners W. J. Symonds, T. Samuel & Co Ltd. Port belonging to Gardiff

MULTITUBULAR BOILER. — ~~MAIN, AUXILIARY OR~~ DONKEY. — Manufacturers of Steel J. Spencer & Sons.  
(Letter for record S.) Total Heating Surface of Boilers 870 sq ft Is forced draft fitted no. No. and Description of Boilers One Cyl Multi S. End Working Pressure 90 lbs. Tested by hydraulic pressure to 180 lbs. Date of test 4/10/07  
No. of Certificate 7605. Can each boiler be worked separately ✓ Area of fire grate in each boiler 31.5 sq ft No. and Description of Safety valves to each boiler Two Spring. Area of each valve 5.939. Pressure to which they are adjusted 95 lbs.  
Are they fitted with easing gear yes. In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no.  
Smallest distance between boilers or uptakes and bunkers or woodwork 14" Outside Mean dia. of boilers 10'-6" Length 9'-6"  
Material of shell plates S. Thickness 5/8" Range of tensile strength 21-32 Are the shell plates welded or flanged no.  
Descrip. of riveting: cir. seams S. lap long. seams Stitch lap Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 3 1/2"  
No. of plates on width of butt straps 6 3/4" Per centages of strength of longitudinal joint rivets 76 Working pressure of shell by rules 97  
Size of manhole in shell 16" x 12" Size of compensating ring 7 x 5 1/2" No. and Description of Furnaces in each boiler Two plain Material S. Outside diameter 39" Length of plain part top 70. Thickness of plates crown 1/2 bottom 69.  
Description of longitudinal joint Stitch No. of strengthening rings half Working pressure of furnace by the rules 98 Combustion chamber es.: Material S. Thickness: Sides 1/2" Back 7/32" Top 1/2" Bottom 5/8" Pitch of stays to ditto: Sides 9 x 9 1/2" Back 9 1/2 x 10"  
9 x 9 1/2" If stays are fitted with nuts or riveted heads into Working pressure by rules 90 Material of stays S Diameter at smallest part 1.45 Area supported by each stay 92.5 Working pressure by rules 94 End plates in steam space: Material S Thickness 2 3/32  
No. of stays 17 x 14" How are stays secured 4.8 x W. Working pressure by rules 101 Material of stays S. area Diameter at smallest part 2.57  
Area supported by each stay 238. Working pressure by rules 105 Material of Front plates at bottom S Thickness 2 3/32" Material of rear back plate S. Thickness 2 3/32" Greatest pitch of stays no plan Working pressure of plate by rules 90 Diameter of tubes 3 1/4"  
No. of tubes 4 1/2 x 4 1/2" Material of tube plates S. Thickness: Front 2 3/32" Back 1/16" Mean pitch of stays 11 1/4" Pitch across wide spaces 14" Working pressures by rules 94. Girders to Chamber tops: Material S Depth and thickness of girder at centre 7 1/2 x 1 1/4" Length as per rule 25 1/4" Distance apart 9 Number and pitch of Stays in each one 9 1/2"  
Working pressure by rules 129 Superheater or Steam chest: how connected to boiler ✓ Can the superheater be shut off and the boiler worked safely ✓ 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 ✓

For The foregoing is a correct description,  
ROBERT STEPHENSON & CO., LIMITED, Manufacturer.

During progress of work in shops - 1907 Aug 26 Sep 19 11 19 23 26 30 Oct 3 11  
During erection on board vessel - Dec 1 1907

Is the approved plan of boiler forwarded herewith yes  
Total No. of visits 13

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

Natural & Workmanship is good -  
Boiler has been built under special Survey & has been properly fitted in this  
Vessel.

Survey Fee ... £ 2 : 2 : 9 When applied for, 30 Dec 1907  
Travelling Expenses (if any) £ — When received, 11 Jan 1908

J. Robinson.  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. 24 JAN 1908

Assigned