

Men R<sup>s</sup> Stephenson & Co S.S. No 111- Bailey No 553

Rpt. 5.

# REPORT ON BOILERS.

No. 52739

TUES. APL 23 1907

Port of Newcastle on Tyne Received at London Office

No. in Survey held at Newcastle Date, first Survey Jan 29 '07 Last Survey 10 April 1907  
 Req. Book. 95 on the Steel S.S. "Marina" (Number of Visits 10)  
 Master \_\_\_\_\_ Built at Newcastle By whom built R<sup>s</sup> Stephenson & Co When built 1907  
 Engines made at Sunderland By whom made Richardson Westgarth & Co when made 1907  
 Donkey Boilers made at Newcastle By whom made R<sup>s</sup> Stephenson & Co when made 1907  
 Registered Horse Power \_\_\_\_\_ Owners Nav Libera Trieste Port belonging to Trieste

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J Spencer & Son

(Letter for record R) Total Heating Surface of Boilers 730  $\frac{1}{2}$  Is forced draft fitted No No. and Description of Boilers One Cyl Multi Working Pressure 90 Tested by hydraulic pressure to 180 Date of test 4-3-07  
 No. of Certificate 7437 Can each boiler be worked separately ✓ Area of fire grate in each boiler 27  $\frac{1}{2}$  No. and Description of safety valves to each boiler Two spring Area of each valve 4.9 Pressure to which they are adjusted 95  
 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 18  $\frac{1}{2}$  Mean dia. of boilers 9-6 Length 8-6  
 Material of shell plates S Thickness 19/32 Range of tensile strength 28/32 Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams S lap long. seams S lap Diameter of rivet holes in long. seams 15/16 Pitch of rivets 3  $\frac{11}{16}$   
 Lap of plates or width of butt straps 6  $\frac{3}{4}$  Per centages of strength of longitudinal joint rivets 80 Working pressure of shell by rules 109 Size of manhole in shell 16 x 12 Size of compensating ring 7 x 19/32 No. and Description of Furnaces in each boiler Two plain Material S Outside diameter 36  $\frac{1}{2}$  Length of plain part top 63 Thickness of plates crown 1/2 bottom 70  
 Description of longitudinal joint d shap No. of strengthening rings ✓ Working pressure of furnace by the rules 105 Combustion chamber plates: Material S Thickness: Sides 17/32 Back 17/32 Top 17/32 Bottom 5/8 Pitch of stays to ditto: Sides 8  $\frac{3}{4}$  Back 10 x 9  $\frac{1}{4}$   
 Top 10  $\frac{1}{4}$  x 9 If stays are fitted with nuts or riveted heads nut Working pressure by rules 91 Material of stays S Diameter at smallest part 1-45 Area supported by each stay 92-5 Working pressure by rules 93 End plates in steam space: Material S Thickness 13/16  
 Pitch of stays 17 x 17 How are stays secured d r L W Working pressure by rules 108 Material of stays S Diameter at smallest part 3-26  
 Area supported by each stay 289 Working pressure by rules 112 Material of Front plates at bottom S Thickness 13/16 Material of Lower back plate S Thickness 13/16 Greatest pitch of stays as per plan Working pressure of plate by rules 90 Diameter of tubes 3  $\frac{1}{4}$   
 Pitch of tubes 4  $\frac{1}{2}$  x 4  $\frac{1}{2}$  Material of tube plates S Thickness: Front 13/16 Back 11/16 Mean pitch of stays 11  $\frac{1}{4}$  Pitch across wide water spaces 14 Working pressures by rules 120 Girders to Chamber tops: Material S Depth and thickness of girder at centre 7  $\frac{1}{2}$  x 1  $\frac{1}{4}$  Length as per rule 24 Distance apart 10  $\frac{1}{4}$  Number and pitch of Stays in each One 9  
 Working pressure by rules 125 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 ✓

## VERTICAL DONKEY BOILER— No. \_\_\_\_\_ Description \_\_\_\_\_ Manufacturers of steel \_\_\_\_\_

Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_ Working pressure \_\_\_\_\_  
 tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of safety valves \_\_\_\_\_  
 No. of safety valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_ Dia. of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Descrip. of riveting long. seams \_\_\_\_\_ Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_  
 Lap of plating \_\_\_\_\_ Per centage of strength of joint Rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Plates \_\_\_\_\_  
 Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_ Dia. of stays \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_  
 Thickness of furnace plates \_\_\_\_\_ Description of joint \_\_\_\_\_ Working pressure of furnace by rules \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ Stayed by \_\_\_\_\_ Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_  
 Thickness of water tubes \_\_\_\_\_

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



Dates of Survey while building { During progress of work in shops - - } 1907 Jan 29 Feb 5 8 13 25 Mar 4 Apr 3 5 10  
 { During erection on board vessel - - - }  
 Total No. of visits 10

Is the approved plan of main boiler forwarded herewith ✓  
 " " " donkey " " Yes

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

The material & workmanship is good.  
 The boiler has been built under special survey & has  
 been properly fitted.

Certificate (if required) to be sent to the Registrar of Shipping (The Registrar is requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee... £	:	:	When applied for.
Special ... £	:	:	22 APR 1907
Donkey Boiler Fee ... £	0	0	When received.
Travelling Expenses (if any) £	:	:	25/4/07

*John H Heck*  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **FRI. 26 APL 1907**

Assigned *see minute on*  
*Std Rpt to 23212*

