

# REPORT ON BOILERS.

No. 284

Received at London Office

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Date of writing Report Aug 4 1909 When handed in at Local Office Aug 4 1909 Port of NEWPORT NEWS, VA.  
No. in Survey held at NEWPORT NEWS Date, First Survey Dec 9<sup>th</sup> 08 Last Survey Aug 3 1909  
Reg. Book. 61 on the STEEL SS "JEAN" (Number of Visits 61) Gross 3125.98 Tons Net 2391.48  
Master H. McDONALD Built at NEWPORT NEWS By whom built NEWPORT NEWS S+II CO When built 1909.6  
Engines made at NEWPORT NEWS By whom made NEWPORT NEWS S+II CO when made 1909  
Boilers made at " By whom made " when made 1909  
Registered Horse Power 241. Owners A. H. BULL S+II CO Port belonging to NEW YORK.

**MULTITUBULAR BOILERS** ~~MAIN, AUXILIARY OR DONKEY.~~ Manufacturers of Steel NORTH BROS. IA.  
(Letter for record S.) Total Heating Surface of Boilers 760 Is forced draft fitted No No. and Description of Boilers ONE S. E. MULTITUBULAR Working Pressure 90 Tested by hydraulic pressure to 180 Date of test 19.5.09.  
No. of Certificate 36 Can each boiler be worked separately ✓ Area of fire grate in each boiler 26 No. and Description of safety valves to each boiler ONE SPRING-LOAD Area of each valve 12.56 Pressure to which they are adjusted 90  
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 12" Mean dia. of boilers 9' 0" Length 10' 0"  
Material of shell plates S. Thickness 3/32 Range of tensile strength 28-32 Are the shell plates welded or flanged No  
Descrip. of riveting: cir. seams LAP SP. long. seams DBS dr. Diameter of rivet holes in long. seams 15/16 Pitch of rivets 4 5/8  
Lap of plates or width of butt straps 9 3/4 Per centages of strength of longitudinal joint 142 Working pressure of shell by rules 90 Size of manhole in shell 12" x 16" Size of compensating ring 26" x 30" No. and Description of Furnaces in each boiler 1. Morrison Material S Outside diameter 55 13/16 Length of plain part top 142 bottom 79.75 Thickness of plates crown 13/32 bottom 13/32  
Description of longitudinal joint WELD No. of strengthening rings ✓ Working pressure of furnace by the rules 101 Combustion chamber plates: Material S Thickness: Sides 7/16 Back 7/16 Top 7/16 Bottom 7/16 Pitch of stays to ditto: Sides 6x7 Back 7x7 Top 6x7 If stays are fitted with nuts or riveted heads NUTS Working pressure by rules 110 Material of stays IRON Diameter at smallest part 1 1/8 Area supported by each stay 49 Working pressure by rules 99 End plates in steam space: Material S Thickness 5/8 Pitch of stays 14x12 How are stays secured DN Working pressure by rules 124 Material of stays IRON Diameter at smallest part 2" Area supported by each stay 168 Working pressure by rules 140 Material of Front plates at bottom S Thickness 5/8 Material of Lower back plate S Thickness 5/8 Greatest pitch of stays 7" x 7" Working pressure of plate by rules 110 Diameter of tubes 3" Pitch of tubes 4" x 4 1/2" Material of tube plates S Thickness: Front 5/8 Back 5/8 Mean pitch of stays 8" x 8 1/4" Pitch across wide water spaces 13" Working pressures by rules 137 Girders to Chamber tops: Material IRON Depth and thickness of girder at centre 6" x 1 1/4" Length as per rule 25" Distance apart 7" Number and pitch of Stays in each 3" x 6" Working pressure by rules 122 Superheater or Steam chest; how connected to boiler NONE 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 ✓  
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 ✓

The foregoing is a correct description,  
**NEWPORT NEWS SHIPBUILDING & DRY DOCK CO.** Manufacturer.

Dates of Survey while building: During progress of work in shops -- Dec. 9. 15. 18. 19. 28. Jan. 7. 8. 21. 25 Feb. 1. 3. 4. 5. 10. 16. Mar. 3. 4. 8. 10. 11. 12. 16. 19. 22. 26. 29. 30  
During erection on board vessel -- Apr. 2. 7. 13. 14. 19. 24. 27. May. 4. 7. 8. 11. 14. 19. 21. 25. 26. 27. June. 8. 19.  
Total No. of visits 61. Is the approved plan of main boiler forwarded herewith YES  
" " " donkey " " YES



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

The boiler has been built under Special Survey in accordance with the approved plan - The workmanship and materials all good - rendering the vessel eligible, in my opinion, to have the notation SB. 90 lbs

Certificate (if required) to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee...	£	:	:	When applied for,
Special ... ..	£	:	:	19...
Donkey Boiler Fee ...	£	:	:	When received,
Travelling Expenses (if any) £	✓	:	:	19...

*John A. Marsden*  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

11th 3 SEP 1900

Assigned

See Minute on

Attached report h. No 284



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Foundation