



**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No. \_\_\_\_\_ Description \_\_\_\_\_

Made at \_\_\_\_\_ By whom made \_\_\_\_\_

Working pressure tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_

Valves \_\_\_\_\_ No. of Safety Valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of Safety \_\_\_\_\_

If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_ Date of adjustment \_\_\_\_\_

Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Dia. of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_

Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Plates \_\_\_\_\_

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 \_\_\_\_\_ Stayed by \_\_\_\_\_

Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— *Two each bolts + nuts for top & bottom ends + main bearings. 6 coupling bolts + nuts, 8 junking bolts. Set of gland studs, valves for all pumps, bolts, nuts, + iron assorted.*

The foregoing is a correct description,

Manufacturer. *J. McIntosh*

Dates of Survey while building: During progress of work in shops— 1908 May 14-24 June 3-16-21-24 July 6-10-16-22-22-28-24 Aug 24  
 During erection on board vessel— Sep 2-14-14-18-14-22-24-28 Oct 1-7  
 Total No. of visits 24

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders 8.9.08 Slides 11.8.08 Covers 11.8.08 Pistons 11.8.08 Rods 7.8.08  
 Connecting rods 7.8.08 Crank shaft ✓ Thrust shaft 2.9.08 Tunnel shafts ✓ Screw shaft 2.9.08 Propeller 2.9.08  
 Stern tube 2.9.08 Steam pipes tested 18.9.08 Engine and boiler seatings 24.6.08 Engines holding down bolts 24.9.08  
 Completion of pumping arrangements 1.10.08 Boilers fixed 24.9.08 Engines tried under steam 1.10.08  
 Main boiler safety valves adjusted 1.10.08 Thickness of adjusting washers *Both 5/16"*  
 Material of Crank shaft *Glasgow Rpt.* Identification Mark on Do. *2505 AF* Material of Thrust shaft *Steel* Identification Mark on Do. *6462 J.H.*  
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *6463 J.H.*  
 Material of Steam Pipes *S. D. Copper* Test pressure *360 lbs*

**General Remarks** (State quality of workmanship, opinions as to class, &c.)

*The engines and boiler of this vessel have been constructed under Special Survey, are of good material and workmanship, and have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of +LMC@10.08 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD + LMC.10.08.

Electric light

The amount of Entry Fee... £ 2 : 0 : 0 When applied for.  
 Special (1/3<sup>rd</sup> due to old) £ 15 : 12 : 0 13.10.1908  
 Donkey Boiler Fee ... £ : : :  
 Travelling Expenses (if any) £ : : : 17.10.1908

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 16 OCT 1908

Assigned

*+ LMC 10.08  
 Elec light*

MACHINERY CERTIFICATE WRITTEN.



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Lloyd's Register Foundation

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

FLAT P... GARBOA... State as thickness way of L... Bottom... Shura... Buta... DOUBLIN... Length and thickness... POOP... RAISED... BRIDGE... FORECAST... LENGTHS... Mar... manufact... Plates, o... The... Shil... Has the... FRAME... REVERS... Mar... LOWER M... bowsprit... opmasts... rigging... masts... Equipm... number of... certificate... 3801... 799... 800... 679... 698... number of... certificate... 4423... ts... ps, N... dlass... ine R... t arra... Bun... ber of... ng in... o Ha... size I... ber of... warks... above... er's... t. 1A.

Rpt. 4.  
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