



**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No.	Description	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	Date of adjustment	
		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	
		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	Dates of survey		

**SPARE GEAR.** State the articles supplied:— 2 top & 2 bottom end bolts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, 1 set of piston springs, a quantity of assorted bolts nuts & iron, propeller, propeller shaft & crank shaft, top & bottom end brasses, eccentric straps & minor parts.

The foregoing is a correct description,  
**NORTH EASTERN MARINE ENGINEERING Co., LTD.**

Manufacturer: *J. Harrison*  
 Secretary: *J. Harrison*  
 Dates of Survey while building: During progress of work in shops -- May 17, 20, 21, 29, 30 Jun. 11 Jul. 1, 2, 11, 15, 18, 19, 22, 25, 26, 30 Aug. 1, 2, 7, 8, 14, 16  
 During erection on board vessel -- 19, 21, 23, 24, 29, 30, Sep. 2, 5, 10, 11, 18, 23, 25, 28, Oct. 2, 3  
 Total No. of visits: 38  
 Is the approved plan of main boiler forwarded herewith: Yes

Dates of Examination of principal parts—Cylinders 1/8/12 Slides 10/9/12 Covers 18/7/12 Pistons 10/9/12 Rods 10/9/12  
 Connecting rods 2/15/12 Crank shaft 26/7/12 Thrust shaft 17/5/12 Tunnel shafts 1/7/12 Screw shaft 29/5/12 Propeller 30/8/12  
 Stern tube 2/7/12 Steam pipes tested 2/18 & 25/9/12 Engine and boiler seatings 25/7/12 Engines holding down bolts 23/9/12  
 Completion of pumping arrangements 28/9/12 Boilers fixed 23/9/12 Engines tried under steam 28/9/12  
 Main boiler safety valves adjusted 28/9/12 Thickness of adjusting washers Port P 3/8" 3/4" Centre P 3/8" 3/4" Stb P 5/16" 3/8"  
 Material of Crank shaft *Steel* Identification Mark on Do. 8/8/12 *do* Material of Thrust shaft *Steel* Identification Mark on Do. 29/3/12 *do*  
 Material of Tunnel shafts *Steel* Identification Marks on Do. 15/7/12 *do* Material of Screw shafts *Iron* Identification Marks on Do. 11/6/12 *do*  
 Material of Steam Pipes *Solid drawn copper* Test pressure 360 lbs

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 The machinery of this vessel has been built under special survey, the materials used are good, and the workmanship is satisfactory, it has been properly fitted on board, and secured, and the engines have been seen running under full power. In my opinion this vessel is eligible for the record of L.M.C. 10, 12.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 10, 12.

*J.W.D. L.H.*  
 18/10/12

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

The amount of Entry Fee .. £ 3 :  
 Special .. .. £ 37. 3 :  
 Donkey Boiler Fee .. .. £ :  
 Travelling Expenses (if any) £ :  
 When applied for: **OCT 15 1912**  
 When received: 21. 10. 12

Committee's Minute  
 Assigned  
 FRI. OCT. 18. 1912  
 + L.M.C. 10, 12



Certificate (if required) to be sent to NEWCASTLE ON TYNE