



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 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 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 end bolts, 2 bottom end bolts, 2 main bearing bolts, 1 set couple bolts, 1 set feed & bilge pump valves, 2 propeller blades, iron & bolts of various sizes, 1 set L.P. piston & 1 H.P. piston valves, 1 set safety valve springs.

The foregoing is a correct description,  
 Ross Duncan & Co. Manufacturer.

Dates of Survey while building	During progress of work in shops	1912. July 31. Feb. 14. 20. Mar. 1. 5. 14. 19. April 1. 9. 12. 16. 19. 23. 30. May 6. 7. 9. 15. 22. 28. 31. June 4. 10. 13. 17. 24.
	During erection on board vessel	July 1. 4. 5. 24. 29. Aug 1. 6. 8. 19. 22. Sept 5. 9. 16. 23. 28. Oct. 2. 9. Dec. 2. 6. 7. 10. 13. 17. 24. 27.
	1913. July 9. 10. 13. 24.	
	Total No. of visits	= 55.

Is the approved plan of main boiler forwarded herewith Yes  
 " " " donkey " " " Yes.  
 Dates of Examination of principal parts—Cylinders 30. 4. 12 Slides 23. 4. 12 Covers 31. 5. 12 Pistons 31. 5. 12 Rods 28. 5. 12  
 Connecting rods 1. 4. 12 Crank shaft 19. 4. 12 Thrust shaft 9. 9. 12 Tunnel shafts 9. 9. 12 Screw shaft 9. 9. 12 Propeller 19. 8. 12  
 Stern tube 19. 8. 12 Steam pipes tested 10. 12. 12 Engine and boiler seatings 21. 12. 12 Engines holding down bolts 13. 12. 12.  
 Completion of pumping arrangements 24. 12. 12. Boilers fixed 13. 12. 12. Engines tried under steam 14. 1. 13.  
 Main boiler safety valves adjusted 9. 1. 13. Thickness of adjusting washers 8. 5/8" p. 5/16"  
 Material of Crank shaft Iron Identification Mark on Do. 5285. Material of Thrust shaft Iron Identification Mark on Do. 5285  
 Material of Tunnel shafts Iron Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 5285.  
 Material of Steam Pipes Copper Test pressure 3 bolts.

General Remarks (State quality of workmanship, opinions as to class, &c. The materials and workmanship are good. The machinery and boilers of this vessel have been constructed under special survey and are in accordance with the Rules and approved plans have been securely fitted on board and tried with satisfactory results under steam and are, in my opinion, eligible for classification and to have record + L.M.C. 1, 13

The boiler is a duplicate of Ross & Duncan's No. 1338, Glasgow Rpt No. 30504.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1, 13

H.E.D.  
 24. 1. 13.

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

The amount of Entry Fee	£ 2 : 0 : 0	When applied for.	16/1/13.
Special	£ 16 : 10 : 0		
Donkey Boiler Fee	£	When received.	18/1/13.
Travelling Expenses (if any)	£		

Committee's Minute GLASGOW 21 JAN. 1913  
 Assigned + L.M.C. 1, 13.

FRI. JAN. 24. 1913  
 FRI. FEB. - 7. 1913



MACHINERY CERTIFICATE WRITTEN

Glasgow.

Certificate (if required) to be sent to the Registrar of Shipping in Glasgow or to the Registrar of Shipping in London.