



**DONKEY BOILER**— Description *None.*

Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_

Working pressure tested by hydraulic pressure to \_\_\_\_\_ 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 \_\_\_\_\_

Diameter of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_

Description of riveting long seams \_\_\_\_\_ Diameter of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_

Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_

Plates \_\_\_\_\_

Dia. of stays \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace plates \_\_\_\_\_ Description of joint \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ Stayed by \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_

Working pressure of furnace by rules \_\_\_\_\_ Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— 1 Piston rod. Packing ring for each piston. 1/3 Crank shaft. 2 Propeller shafts, & 4 blades. 2 brasses & 2 bolts & nuts for crank pins. 2 pr. Xhd brasses & 4 bolts & nuts. Pair main bearing bushes & 2 bolts & nuts. 4 Xhd guide shoes. Pair ecc. straps & rods. 2 S.V. spindles. Quadrant block. Set coup. bolts. Set feed & bilge valves & seats. Sprung for safety & escape valves. Air pump valves. Boiler tubes. Condenser tubes. Fire bars. 2 Stern bushes. Bolts & nuts. Assorted iron etc.

The foregoing is a correct description, *1.1. Maruta, Yokohama, Manufacturer.* *Gunton Kishi & Co. Ltd. Yokohama*

Dates of Survey while building } During progress of work in shops - - } 2nd July 1902 to October 1902  
 } During erection on board vessel - - } Oct 1902 to February 1903. Vessel leaves Nagasaki 3rd Mar 03  
 Total No. of visits } Continuous attendance

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

**ENGINES**—Length of stern bush *3'9"* Diameter of crank shaft journals *17 1/2"* as per rule *12"* as fitted *12 1/2"* Diameter of thrust shaft under collars *12"*

**BOILERS**—Range of tensile strength *26-30* Are they welded or flanged *No* **DONKEY BOILERS**—No.  Range of tensile strength

Is the approved plan of main boiler forwarded herewith *Yes* Is the approved plan of donkey boiler forwarded herewith

The Machinery has been made & fitted under special survey & complies with the requirements of the Rules. The workmanship has been found good throughout. The machinery is a replicate of that fitted in the sister vessels "Kaga Maru" & "Iyo Maru". The report on the Electric Lighting will be sent shortly.

The machinery is in my opinion eligible for the record & L.M.C. 303 (red) in the Register.

It is submitted that this vessel is eligible for **THE RECORD.** L.M.C. 303 ELEC LIGHT.

*Bol*  
*9.4.03*  
*A.L.*  
*9.4.03*

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

The amount of Entry Fee.	£ 3 : - :	When applied for,
Special	£ 73 : 10 :	
Donkey Boiler Fee	£ : : :	When received,
Travelling Expenses (if any)	£ : : :	

*A. L. Jones*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **WED. 15 APR 1903**  
*Assigned* *LMC 303*

MACHINERY CERTIFICATE WRITTEN.

