

# REPORT ON MACHINERY

15th MAY, 1882  
(Received in London Office)

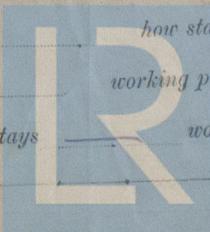
No. 46  
 No. in Survey held at Genoa Date, first Survey 21/3/82 Last Survey 24/3 1882  
 Reg. Book. on the Steam lighter "Roma" Tons 78  
56  
 Master Cappilino Built at Sampurdarima When built 1882  
 Engines made at Sampurdarima By whom made Sis. Ansaldo & Co. when made 1882  
 Boilers made at Off. it. By whom made it. when made 1882  
 Registered Horse Power Owners A. & G. Cappilino Brothers Port belonging to Genoa

## ENGINES, &c.—

Description of Engines Comp. Inverted. D. A. Twin screws. Two separate engines  
 Diameter of Cylinders 7" 1/2 - 13" 3/8 Length of Stroke 9" No. of Rev. per minute 360 Point of Cut off, High Pressure 5/16 Low Pressure 6/10  
 Diameter of Screw shaft 2" 13/16 Diameter of Tunnel shaft 2" 13/16 Diameter of Crank shaft journals 2" 13/16 Diameter of Crank pin 2" 13/16 size of Crank webs 1 13/16 x 3 3/16  
 Diameter of screw 4" 1 1/2 Pitch of screw 3' 3" 3/8 No. of blades 4 state whether moveable no total surface 3.97 ft<sup>2</sup>  
 No. of Feed pumps 1 diameter of ditto 1 3/4 Stroke 3 3/16 Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 1 diameter of ditto 1 3/4 Stroke 3 3/16 Can one be overhauled while the other is at work yes  
 Where do they pump from all bilges and engine room  
 No. of Donkey Engines Two Giffards Size of Pumps — Where do they pump from Bilges, tank, sea  
and one of them serves to feed the boiler  
 Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible —  
 No. of bilge injections — and sizes — Are they connected to condenser, or to circulating pump —  
 How are the pumps worked by levers or rocking beams in the usual way  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the discharge pipes above or below the deep water line above  
 Are they each fitted with a discharge valve always accessible on the plating of the vessel yes Are the blow off cocks fitted with a spigot and brass covering plate yes  
 What pipes are carried through the bunkers none How are they protected —  
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launching  
 Is the screw shaft tunnel watertight no and fitted with a sluice door — worked from —

## BOILERS, &c.—

Number of Boilers one Description Cylindrical & Tubular  
 Working Pressure by rule 68 lbs Tested by hydraulic pressure to 180 Date of test 21 March 1882  
 Description of superheating apparatus or steam chest one cylindrical shell connected to boiler by one neck 14" dia  
 Can each boiler be worked separately — Can the superheater be shut off and the boiler worked separately no  
 No. of square feet of fire grate surface in each boiler 12.5 ft<sup>2</sup> Description of safety valves locomotive spring valves  
 No. to each boiler 2 area of each valve 6" dia Are they fitted with easing gear yes  
 No. of safety valves to superheater — area of each valve — are they fitted with easing gear —  
 Smallest distance between boilers and bunkers or woodwork —  
 Diameter of boilers 66" Length of boilers 7' 5" description of riveting of shell long. seams double lap circum. seams single lap  
 Thickness of shell plates 15/32 diameter of rivet holes 3/4 full whether punched or drilled punched pitch of rivets 2 1/8  
 Lap of plating 2 3/4 x 4 3/4 per centage of strength of longitudinal joint 62 working pressure of shell by rules 68 lbs  
 Size of manholes in shell 16" x 12" size of compensating rings angle iron 3" x 3 1/2"  
 No. of Furnaces in each boiler one outside diameter 31" length, top 62" bottom 83"  
 Thickness of plates 7/16 description of joint single lap if rings are fitted one greatest length between rings 3 feet  
 Working pressure of furnace by the rules 183 lbs  
 Combustion chamber plating, thickness, sides 15/32 back 15/32 top 15/32  
 Pitch of stays to ditto sides 6" x 6" back 6" x 6" top Six girders  
 If stays are fitted with nuts or riveted heads riveted heads working pressure of plating by rules 140 lbs  
 Diameter of stays at smallest part 0" 90 working pressure of ditto by rules 106 lbs  
 End plates in steam space, thickness 13/16 pitch of stays to ditto 8" 66 how stays are secured double nuts  
 Working pressure by rules 230 lbs diameter of stays at smallest part 1" 1/2 working pressure by rules 141 lbs  
 Front plates at bottom, thickness 12/16 Back plates, thickness 12/16 greatest pitch of stays — working pressure by rules —



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GEN 1112-0028

Diameter of tubes  $2\frac{1}{2}$  pitch of tubes  $3\frac{3}{8} \times 2\frac{1}{16}$  thickness of tube plates, front  $11/16$  back  $11/16$   
 How stayed *Stay tubes* pitch of stays  $10\frac{1}{8}$  width of water spaces  $2\frac{1}{2}$  &  $4$   
 Diameter of Superheater or Steam chest  $24$  length  $6' 6\frac{3}{4}$   
 Thickness of plates  $6/16$  description of longitudinal joint *single lap* diameter of rivet holes  $3/4$  full pitch of rivets  $2$   
 Working pressure of shell by rules  $125$  Diameter of flue  $18$  thickness of plates \_\_\_\_\_  
 If stiffened with rings \_\_\_\_\_ distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_  
 End plates of superheater, or steam chest; thickness  $7/16$  How stayed *No Stay - Elliptical ends*  
 Superheater or steam chest; how connected to boiler *By one neck 14" diam of 1/2" plate rivetted to boiler & steam chest*

**DONKEY BOILER**

Description *No Donkey Boiler*

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 \_\_\_\_\_  
 If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_  
 Diameter of donkey boiler \_\_\_\_\_ length \_\_\_\_\_ description of riveting \_\_\_\_\_  
 thickness of shell plates \_\_\_\_\_ diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_  
 pitch of rivets \_\_\_\_\_ lap of plating \_\_\_\_\_ per centage of strength of joint \_\_\_\_\_  
 thickness of crown plates \_\_\_\_\_ stayed by \_\_\_\_\_  
 Diameter of furnace, top \_\_\_\_\_ bottom \_\_\_\_\_ length of furnace \_\_\_\_\_  
 thickness of 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 plates \_\_\_\_\_ thickness of water tubes \_\_\_\_\_

The foregoing is a correct description,  
 Manufacturer.

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

*The workmanship & materials employed in the construction of the Engines & Boiler are of the best description and are now in good and safe working condition and eligible in my opinion to be now in the Register Book & Lloyd's M. C. 4. 82 mixed*

*Francis Westerman*

*No submitted this vessel is eligible to have the certificate & the certificate recorded 15/7/82*

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

The amount of Entry Fee .. £ 1 : 0 : 0 received by me,  
 Special .. £ 8 : 0 : 0  
 Certificate (if required) .. £ : 2 : 6 18  
 To be sent as per margin.  
 (Travelling Expenses, if any, £ 2, 4, 6...)

Committee's Minute Tuesday, 16th May, 1882

*Lloyd's Register*

