

# REPORT ON MACHINERY.

Port of Genoa

MON 17 APL 1899

Received at London Office 18

No. in Survey held at Sestri Ponente Date, first Survey 2<sup>nd</sup> July 1899 Last Survey 12.4.1899  
 Reg. Book. Steel Spar Deck Screw Steamer "Venus" (Number of Visits 15)  
 Master Cremaschi Built at Sestri Ponente By whom built N. Odero & C. A. Tons {Gross 4051 Net 2641  
 Engines made at Sestri Ponente By whom made N. Odero & C. A. When built 1899  
 Boilers made at Sestri Ponente By whom made N. Odero & C. A. when made 1899  
 Registered Horse Power 180 Owners Soc. Com. Ital. G. Nav. Port belonging to Genoa  
 Nom. Horse Power as per Section 28 Is Refrigerating Machinery fitted No Is Electric Light fitted No

**ENGINES, &c.—Description of Engines**

Description of Engines			No. of Cylinders	No. of Cranks
Dia. of Cylinders	Length of Stroke	Revs. per minute	Dia. of Screw shaft	Lgth. of stern bush
Dia. of Tunnel shaft	Dia. of Crank shaft journals	Dia. of Crank pin	Size of Crank webs	Dia. of thrust shaft under collars
No. of Feed pumps	Diameter of ditto	Stroke	Can one be overhauled while the other is at work	
No. of Bilge pumps	Diameter of ditto	Stroke	Can one be overhauled while the other is at work	
No. of Donkey Engines	Sizes of Pumps	No. and size of Suctions connected to both Bilge and Donkey pumps		
In Engine Room		In Holds, &c.		
No. of bilge injections	sizes	Connected to condenser, or to circulating pump	Is a separate donkey suction fitted in Engine room & size	
Are all the bilge suction pipes fitted with roses		Are the roses in Engine room always accessible	Are the sluices on Engine room bulkheads always accessible	
Are all connections with the sea direct on the skin of the ship		Are they Valves or Cocks		
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates		Are the discharge pipes above or below the deep water line		
Are they each fitted with a discharge valve always accessible on the plating of the vessel		Are the blow off cocks fitted with a spigot and brass covering plate		
What pipes are carried through the bunkers		How are they protected		
Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times				
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges				
When were stern tube, propeller, screw shaft, and all connections examined in dry dock		Is the screw shaft tunnel watertight		
Is it fitted with a watertight door		worked from		

**BOILERS &c.—** (Letter for record S) Total Heating Surface of Boilers 714 sq feet Is forced draft fitted No

No. and Description of Boiler 1. Orig. tubular - Porten Working Pressure 100 lb tested by hydraulic pressure to 200 lb  
 Date of test 15.10.99 in each boiler be worked separately Area of fire grate in each boiler 27 sq ft. No. and Description of safety valves to each boiler 2, Spring loaded Area of each valve 5.74 sq in. pressure to which they are adjusted 100 lb Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 16" Mean dia. of boilers 9.2 1/2" Length 9.2 1/2" Material of shell plates Steel  
 Thickness 11/20 Range of tensile strength 27-32 Are they welded or flanged Flang Descrip. of riveting: cir. seams out single long. seams butts double  
 Diameter of rivet holes in long. seams 7/8 Pitch of rivets 3" 3/8 Lap of plates or width of butt straps 8 1/2"  
 Per centages of strength of longitudinal joint rivets 85 plate 74 Working pressure of shell by rules 100 lb Size of manhole in shell None  
 Size of compensating ring \_\_\_\_\_ No. and Description of Furnaces in each boiler 2. Plain Material Steel Outside diameter 32"  
 Length of plain part top 6.6 3/4 bottom 7.1 1/2 Thickness of plates crown 10/20 bottom 10/20 Description of longitudinal joint lapped Single Butt No. of strengthening rings None  
 Working pressure of furnace by the rules 100 lb Combustion chamber plates: Material Steel Thickness: Sides 10/20 Back 9/20 Top 9/20 Bottom 10/20  
 Pitch of stays to ditto: Sides 7" 3/8 Back 7" 3/8 Top 9" 1/8 If stays are fitted with nuts or riveted heads Riveted heads Working pressure by rules 109 lb  
 Material of stays Steel Diameter at smallest part 1" Area supported by each stay 50.4 sq in. Working pressure by rules 121 lb End plates in steam space:  
 Material Steel Thickness 3/4" Pitch of stays 14" 1/8 How are stays secured Riveted Working pressure by rules 101 lb Material of stays Steel  
 Diameter at smallest part 1" 1/16 Area supported by each stay 200 sq in. Working pressure by rules 102 lb Material of Front plates at bottom Steel  
 Thickness 3/4" Material of Lower back plate Steel Thickness 12/20 Greatest pitch of stays 7" 1/8 Working pressure of plate by rules 101 lb  
 Diameter of tubes 3" Pitch of tubes 4" Material of tube plates Steel thickness: Front 15/20 Back 14/20 Mean pitch of stays 12"  
 Pitch across wide water spaces 14" Working pressures by rules 136 lb Girders to Chamber tops: Material \_\_\_\_\_ Depth and thickness of girder at centre \_\_\_\_\_ Length as per rule \_\_\_\_\_ Distance apart \_\_\_\_\_ Number and pitch of Stays in each \_\_\_\_\_  
 Working pressure by rules \_\_\_\_\_ Superheater or Steam chest; how connected to boiler \_\_\_\_\_ Can the superheater be shut off and the boiler worked separately \_\_\_\_\_ Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_  
 If stiffened with rings \_\_\_\_\_ Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_  
 Working pressure of end plates \_\_\_\_\_ Area of safety valves to superheater \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

**DONKEY BOILER**— No. \_\_\_\_\_ Description \_\_\_\_\_

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 \_\_\_\_\_

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 \_\_\_\_\_ 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 \_\_\_\_\_ 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: *Half Set of Fire Gears—Spring for Safety Valves*

The foregoing is a correct description,

Manufacturer.

*J.P. Macfarlane*  
#1010

Dates of Survey while building	During progress of work in shops—	<i>July 2. 7. 14. 23. Aug 9. 17. 28 Sept 19</i>	<i>M<sup>r</sup> Milton visit</i>
	During erection on board vessel—	<i>1899 Jan 5. 11 Feb 21 March 13— April 12</i>	
	Total No. of visits	<i>15</i>	

Is the approved plan of main boiler forwarded herewith \_\_\_\_\_

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

*donkey "Not Retained for sister vessel"*

*Constructed as per approved plan dated 3. 12. 97*  
*Workmanship Very Good—*  
*Submitted to an hydraulic pressure of 200 lb with good result—*  
*Safety Valves adjusted under steam to blow off at 10 lb pressure—*  
*The whole material is Martin's best steel produced by John Hancock and Co of Newcastle*  
*Only tested and certified—*  
*M<sup>r</sup> L. Masnie has visited me in this Survey—*  
*The above Donkey Boiler is equal to that of her sister ship "Jupiter" launched from Fore Yard No 108—*

Certificate (if required) to be sent to this Office

The amount of Entry Fee..	£	:	:	When applied for,
Special ..	£	2	2	15. 4. 99
Donkey Boiler Fee ..	£	:	:	When received,
Travelling Expenses (if any) £	:	16	:	15. 4. 99

Committee's Minute

TUES, 18 APL 1899

FRI, 12 MAY 1899

FRI, 2 JUN 1899

*J & S. Macfarlane*  
 For Engineer Surveyor to Lloyd's Register of British & Foreign Shipping  
 Marine Engineer

Lloyd's Register Foundation

No. in Reg. Book. \_\_\_\_\_  
 Master \_\_\_\_\_  
 Engines m \_\_\_\_\_  
 Boilers m \_\_\_\_\_  
 Registered \_\_\_\_\_  
 Nom. Hors \_\_\_\_\_  
 ENGIN \_\_\_\_\_  
 Dia. of Cy \_\_\_\_\_  
 Dia. of Tur \_\_\_\_\_  
 collars \_\_\_\_\_  
 No. of Fe \_\_\_\_\_  
 No. of Bil \_\_\_\_\_  
 No. of Do \_\_\_\_\_  
 In Engine \_\_\_\_\_  
 Ade \_\_\_\_\_  
 No. of bilge \_\_\_\_\_  
 Are all the \_\_\_\_\_  
 Are all co \_\_\_\_\_  
 Are they f \_\_\_\_\_  
 Are they e \_\_\_\_\_  
 What pip \_\_\_\_\_  
 Are all p \_\_\_\_\_  
 Are the b \_\_\_\_\_  
 When we \_\_\_\_\_  
 Is it fitte \_\_\_\_\_  
 BOILED \_\_\_\_\_  
 No. and \_\_\_\_\_  
 Date of t \_\_\_\_\_  
 each boiler \_\_\_\_\_  
 Smallest d \_\_\_\_\_  
 Thickness \_\_\_\_\_  
 Diameter \_\_\_\_\_  
 Per centag \_\_\_\_\_  
 Size of co \_\_\_\_\_  
 Length of \_\_\_\_\_  
 Working \_\_\_\_\_  
 Pitch of s \_\_\_\_\_  
 Material \_\_\_\_\_  
 Material \_\_\_\_\_  
 Diameter \_\_\_\_\_  
 Thickness \_\_\_\_\_  
 Diameter \_\_\_\_\_  
 Pitch a \_\_\_\_\_  
 thickness \_\_\_\_\_  
 Working \_\_\_\_\_  
 separately \_\_\_\_\_  
 holes \_\_\_\_\_  
 If stiffen \_\_\_\_\_  
 Working \_\_\_\_\_