

REPORT ON MACHINERY.

Port of *Leghorn*

Received at London Office **MON. 8 OCT 1900**

No. in Survey held at *Leghorn*
Reg. Book. on the *S. S. Gola & "Faurguana"*

Date, first Survey *January 1899* Last Survey *6th October 1900*
(Number of Visits *75*)

Tons { Gross *3914.09*
Net *2855.95*
When built *1899-900*

Master *E. Niccobono* Built at *Leghorn* By whom built *Orlando Brox*

Engines made at *Leghorn* By whom made *Orlando Brox* when made *1899-900*

Boilers made at *Itto* By whom made *Itto* when made *Itto*

Registered Horse Power *296.30* Owners *J & V Florio of Palermo* Port belonging to *Palermo*

Nom. Horse Power as per Section 28 *296.30* Is Electric Light fitted *at work*

ENGINES, &c.—Description of Engines *Triple expansion* No. of Cylinders *3* No. of Cranks *3*
Diameter of Cylinders *22", 37", 41", 61", 81"* Length of Stroke *39", 37"* Revolutions per minute *as per rule 11 1/8 x 75*
Diameter of Tunnel shaft *as per rule 12"* Diameter of Crank shaft journals *11 3/8"* Diameter of Crank pin *11 1/8"* Size of Crank webs *7 1/2 x 14 3/16"*
Diameter of screw *16 1/4 x 7/8"* Pitch of screw *15.5"* No. of blades *4* State whether moveable *no* Total surface *75.25*
No. of Feed pumps *2* Diameter of ditto *3 5/16"* Stroke *22 1/2"* Can one be overhauled while the other is at work *yes*
No. of Bilge pumps *2* Diameter of ditto *3 5/16"* Stroke *22 1/2"* Can one be overhauled while the other is at work *yes*
No. of Donkey Engines *2 Worthington* Sizes of Pumps *6 x 9" - 8 5/8 x 9"* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *3 1/2"* In Holds, &c. *No 1 two 3" No 2 two 3" No 3 two 3"*
No 4 one 3" funnel well & 3"
No. of bilge injections *1* sizes *5"* Connected to condenser, ~~on to circulating pump~~ *yes* Is a separate donkey suction fitted in Engine room & size *yes 3"*
Are all the bilge suction pipes fitted with roses *yes* Are the roses in Engine room always accessible *yes* Are the sluices on Engine room bulkheads always accessible *yes*
Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *valves*
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
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 *—* How are they protected *—*
Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *yes*
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *yes*
When were stern tube, propeller, screw shaft, and all connections examined in dry dock *before* Is the screw shaft tunnel watertight *yes*
Is it fitted with a watertight door *yes* worked from *upper main deck.*

BOILERS, &c.—(Letter for record *NA*) Total Heating Surface of Boilers *5071.10* Is forced draft fitted *no*
No. and Description of Boilers *2 single ended cylindrical multitubular* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs*
Date of test *19/12/99* Can each boiler be worked separately *yes* Area of fire grate in each boiler *77.5* No. and Description of safety valves to
each boiler *two spring* Area of each valve *9.52* Pressure to which they are adjusted *180 lbs* Are they fitted
with easing gear *yes* Smallest distance between boilers or uptakes and bunkers or woodwork *1' to bunker* Mean diameter of boilers *15.1 1/8"*
Length *10'* Material of shell plates *steel* Thickness *1 1/4"* Description of riveting: circum. seams *double & triple* long. seams *quadruple*
Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *4.725 - 9.45 - 18.90* Lap of plates or width of butt straps *inside 20"*
Per centages of strength of longitudinal joint *ribs 92.75* Working pressure of shell by rules *180 lbs* Size of manhole in shell *front 11" x 15"*
Size of compensating ring *4 3/4 x 29 3/32* No. and Description of Furnaces in each boiler *4 corrugate (Fox)* Material *steel* Outside diameter *5.4"*
Length of plain part *bottom 8.2"* Thickness of plates *bottom 3 1/2"* Description of longitudinal joint *welded* No. of strengthening rings *—*
Working pressure of furnace by the rules *188.8* Combustion chamber plates: Material *steel* Thickness: Sides *1 1/2"* Back *1 1/2"* Top *1 1/2"* Bottom *1 1/2"*
Pitch of stays to ditto: Sides *7 x 7"* Back *6 1/16 x 6 1/16"* Top *7 x 7"* If stays are fitted with nuts or riveted heads *with nuts* Working pressure by rules *189 lbs*
Material of stays *steel* Diameter at smallest part *1 1/4"* Area supported by each stay *44 3/4 x 44"* Working pressure by rules *200 lbs* End plates in steam space:
Material *steel* Thickness *7/8"* Pitch of stays *14 3/20 - 15"* How are stays secured *double nuts & washers* Working pressure by rules *191 lbs* Material of stays *steel*
Diameter at smallest part *2 1/20"* Area supported by each stay *225"* Working pressure by rules *184 lbs* Material of Front plates at bottom *steel*
Thickness *13 1/16"* Material of Lower back plate *steel* Thickness *23 3/32"* Greatest pitch of stays *16 1/2"* Working pressure of plate by rules *182 lbs*
Diameter of tubes *3 1/4"* Pitch of tubes *4 1/32"* Material of tube plates *steel* Thickness: Front *25 3/32"* Back *25 3/32"* Mean pitch of stays *8 21/32"*
Pitch across wide water spaces *13 3/4"* Working pressures by rules *268 lbs* Girders to Chamber tops: Material *cast steel* Depth and
thickness of girder at centre *6.3 x 1 1/4"* Length as per rule *23 1/2"* Distance apart *7 3/32"* Number and pitch of Stays in each *two 7 3/32"*
Working pressure by rules *181 lbs* 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— Description *Horizontal multitubular*
Made at *Leghorn* By whom made *Orlando Ross* When made *1900* Where fixed *on main deck*
Working pressure *100 lbs* tested by hydraulic pressure to *200 lbs* No. of Certificate *29* Fire grate area *29* Description of safety valves *two spring*
No. of safety valves *two* Area of each *5.28* Pressure to which they are adjusted *100 lbs* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *yes* Through the ^{reduction valve} Diameter of donkey boiler *9' 2 1/2"* Length *9' 2 1/2"* Material of shell plates *steel* Thickness *5 1/8"*
Description of riveting long seams *double (double butt straps)* Diameter of rivet holes *7/8"* Whether punched or drilled *drilled* Pitch of rivets *3 3/8"*
Width of ~~butt straps~~ ^{butt straps} Rivets *85%* Thickness of shell ~~cover~~ ^{end} plates *3/4"* Radius of do. *flat* No. of stays to do. *14*
Lap of plating *8 5/8"* Per centage of strength of joint Plates *74%* Thickness of furnace ~~cover~~ ^{end} plates *1/2"* Description of
Dia. of stays. *1 1/16"* Diameter of furnace Top *31"* Bottom *29"* Length of furnace *6' 9"* Thickness of furnace plates *1/2"*
joint *welded one* ^{strengthening rings} Thickness of furnace crown plates *1/2"* Stayed by *Working pressure of shell by rules 112 1/2*
Working pressure of furnace by rules *177 lbs* Diameter of uptake *✓* Thickness of uptake plates *✓* Thickness of water tubes *✓*

SPARE GEAR. State the articles supplied:— *2 connecting rod top-end & 2 connecting rod bottom-end bolts - 2 main bearing & 1 set of coupling bolts - 1 set of feed & bilge pump valves - 1 set of piston springs - 2 safety valve springs - 10 condenser & 16 boilers tubes - 2 air pump valves - 1 set connecting rod trapes - 1 set cross-head trapes & other sundries -*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops - *1899*
During erection on board vessel - *1900*
Total No. of visits

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

ENGINES—Length of stern bush *4'* Diameter of crank shaft journals *as per rule 11 1/8"* Diameter of thrust shaft under collars *11 1/8"*
as fitted 11 1/8"

BOILERS—Range of tensile strength *17-32* Are they welded or flanged *no* DONKEY BOILERS—No. *1* Range of tensile strength

Is the approved plan of main boiler forwarded herewith *yes* Is the approved plan of donkey boiler forwarded herewith *no*

This vessel's machinery has been built under survey in accordance with the approved plans & the requirements of the rules.

The boiler & main steam pipes have been tested by hydraulic pressure to 360 lbs per square inch.

The engine & boilers were seen fitted on board after which the engines were seen running under steam & the safety valves were then adjusted to the working pressure to 180 lbs per square inch with satisfactory results.

The vessel is therefore eligible in my opinion to be classed & to have the notation of **+ LMC 10/900** recorded in the Register Book.

It is submitted that this vessel is eligible for the notation **+ LMC 10/900** as high

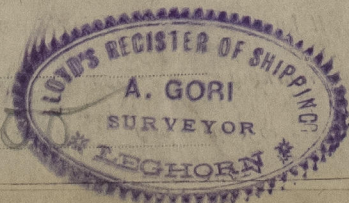
C.M.
9.10.00

The amount of Entry Fee. £ *2 : 0 :* When applied for.
Special £ *34 : 16 :*
Donkey Boiler Fee £ *2 : 2 :* When received.
Travelling Expenses (if any) £ *:*

Committee's Minute

Assigned

Nov 1900



Giovanni Parrini
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Marine Engineer
Amend. 10/21
Surveyor to Lloyd's Reg

Lloyd's Register Foundation