

REPORT ON MACHINERY.

No. 175

Port of Leghorn

Received at Leghorn 6 MAY 1903

No. in Survey held at Leghorn

Date, first Survey Feb 8th 1902 Last Survey 15th April 1903

Reg. Book.

on the S. S. "Sicania"

(Number of Visits ?)

Master Masfardo Built at Leghorn By whom built Messrs Orlando Bros Tons Gross 4435.47
Net 2927.63

Engines made at Leghorn By whom made Messrs Orlando Bros when made do

Boilers made at do By whom made do when made do

Registered Horse Power 302 Owners A. Peirce Port belonging to Messina

Nom. Horse Power as per Section 28 302 Is Refrigerating Machinery fitted no Is Electric Light fitted no

ENGINES, &c. Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 31.18 - 63 Length of Stroke 39 3/8 Revs. per minute 85 Dia. of Screw shaft 11.6 Material of screw shaft cast steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no Is the after end of the liner made water tight no

Is the propeller boss no If the liner is in more than one length are the joints burned no If the liner does not fit tightly at the part no

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive no If two no

liners are fitted, is the shaft lapped or protected between the liners yes lapped at the ends of liners Length of stern bush 56 1/2

Dia. of Tunnel shaft 10.9 Dia. of Crank shaft journals 11.5 Dia. of Crank pin 11.8 Size of Crank webs 13.2 x 7.48 Dia. of thrust shaft under 11.4

No. of Feed pumps 2 Diameter of ditto 3.34 Stroke 22.05 Can one be overhauled while the other is at work no

No. of Bilge pumps 2 Diameter of ditto 3.34 Stroke 22.05 Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps 8.97 x 8.66 x 8.97 No. and size of Suctions connected to both Bilge and Donkey pumps Ballast Head

In Engine Room three 3 1/2 diam In Holds, &c. two 3 1/2 No 1 two 3 1/2 No 2 two 3 1/2 Deep tank

No. of bilge injections one sizes 10 Connected to condenser, or to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes

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 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 those to the fore holds How are they protected wooden casing

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 launching Is the screw shaft tunnel watertight yes

Is it fitted with a watertight door yes worked from Upper platform

BOILERS, &c. (Letter for record S) Total Heating Surface of Boilers 5080 Is forced draft fitted no

No. and Description of Boilers 2 cylindrical multitubular Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs

Date of test 3/1/03 Can each boiler be worked separately yes Area of fire grate in each boiler 77.5 No. and Description of safety valves to 2 Spring

each boiler 2 Spring Area of each valve 9.8 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 12 Mean dia. of boilers 181.1 Length 10 Material of shell plates steel

Thickness 1 1/2 Range of tensile strength 27-32 Are they welded or flanged no Descrip. of riveting: cir. seams double outside long. seams double inside

Diameter of rivet holes in long. seams 1 3/8 Pitch of rivets 9 1/2 Lap of plates or width of butt straps 20 1/2

Per centages of strength of longitudinal joint rivets 92.8 Working pressure of shell by rules 179 lbs Size of manhole in shell 15 x 11

Size of compensating ring 5 1/2 x 7 1/8 No. and Description of Furnaces in each boiler 4 Fox's Material steel Outside diameter 48 3/4

Length of plain part top 1/2 Thickness of plates bottom 1/2 Description of longitudinal joint welded No. of strengthening rings none

Working pressure of furnace by the rules 172.5 Combustion chamber plates: Material steel Thickness: Sides 9/16 Back 1/2 Top 9/16 Bottom 9/16

Pitch of stays to ditto: Sides 7.08 x 7.08 Back 6.69 x 6.69 Top 7.08 x 7.08 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 218 lbs

Material of stays steel Diameter at smallest part 1 1/4 Area supported by each stay 50 Working pressure by rules 208 lbs End plates in steam space: 2 nuts washers

Material steel Thickness 5/16 Pitch of stays 14.9 x 14.17 How are stays secured 220 cast Working pressure by rules 196.75 Material of stays steel

Diameter at smallest part 2 5/16 Area supported by each stay 211 Working pressure by rules 176.5 Material of Front plates at bottom steel

Thickness 5/16 Material of Lower back plate steel Thickness 4/16 Greatest pitch of stays 14.6 x 6.7 Working pressure of plate by rules 180 lbs

Diameter of tubes 3 1/4 Pitch of tubes 4.3 x 4.3 Material of tube plates steel Thickness: Front 3/32 Back 3/32 Mean pitch of stays 8.6

Pitch across wide water spaces 13.7 Working pressures by rules 178 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 6.3 x 1.26 Length as per rule 22.8 Distance apart 7.08 Number and pitch of Stays in each 2 - 7.08

For endorsement approving sizes of Machinery see dt. 2.2.03

W1585-0023

DONKEY BOILER— No. *one* Description *Horizontal Multitubular*
 Made at *Leghorn* By whom made *M^r Orlando Broi* When made *1903* Where fixed *on main deck*
 Working pressure *100* tested by hydraulic pressure to *200* No. of Certificate *287* Fire grate area *28.5* Description of safety valves *Spring*
 No. of safety valves *2* Area of each *5.5* Pressure to which they are adjusted *100* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *9'-2 1/4"* Length *9'-2 1/4"* Material of shell plates *steel* Thickness *1/2* Bar Range of tensile strength *26-32* Descrip. of riveting *double riveted* Dia. of rivet holes *.86* Whether punched or drilled *yes* Pitch of rivets *3-3/4*
 Width of butt straps *1 1/2* Descrip. of riveting *double butt straps* Rivets *98%* Thickness of shell crown plates *3/4 x 19/32* Radius of do. *Flat* No. of Stays to do. *✓*
 Lap of plating *8.6* Per centage of strength of joint *74%* Plates *7/16* Dia. of stays *1 1/16* Diameter of furnace *Top outside Bottom 32"* Length of furnace *45"* Thickness of furnace plates *.48* Description of joint *welded* Thickness of *combustion chamber* furnace crown plates *1 1/2* Stayed by *1" dia. stays steel pitch 7.08* Working pressure of shell by rules *100 lbs*
 Working pressure of furnace by rules *155 lbs* Diameter of uptake *3"* Thickness of uptake plates *3/4 x 11/16* Thickness of water tubes *✓*

SPARE GEAR. State the articles supplied:— *2 top end and 2 bottom end bolts & nuts of connecting rod, one set of coupling bolts, one set of main bearing bolts & nuts - one set of L.P. piston springs, one set of feed & bilge pump valves, bolts & nuts of iron of different size.*
 The foregoing is a correct description,

J. Orlando Manufacturer.

Dates of Survey while building
 During progress of work in shops - *Feb 1903*
 During erection on board vessel - *1903*
 Total No. of *28* s
 Is the approved plan of main boiler forwarded herewith *yes*
 " " " donkey " " " *yes*

General Remarks (State quality of workmanship, opinions as to class, &c. *This vessel's machinery was made and almost completed before the builder decided to have it classed. The workmanship and materials are good. The boilers have been examined, compared with the approved plans, & found to agree with the same; they have been tested to double the working pressure & found tight & sound. The engines have been adjusted to the working pressure under steam. The vessel is therefore eligible in our opinion to be classed as regards the machinery, and to have the notation of L.M.C.5.03 made in the R. Book.*

Note. Arrangements have been made to prevent the deep tank from being flooded when used for cargo space, also to enable this to be drained when used in that capacity. *G. Parrini*

It is submitted that this vessel is eligible for THE RECORD L M C 4:03

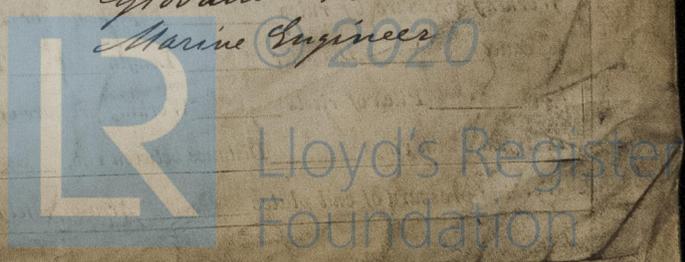
PAJ
6.5.03
7.5.03

The amount of Entry Fee...	£ 3 : 0 :	When applied to,
Special	£ 35 : 2 :	19...
Donkey Boiler Fee	£ 2 : 2 :	When received,
Travelling Expenses (if any) £	:	19.8.19.03
<i>£ 40-4-</i>		

Francis Pittson
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Giovanni Parrini
 Marine Engineer

TUES. 19 JAN 1904

Committee's Minute
 Assigned *L M C 4:03*



Leghorn Office

Certificate (if required) to be sent to