

## REPORT ON MACHINERY.

Port of Glasgow

TUES. 2 DEC 1902

Received at London Office 19

No. in Survey held at Renfrew

Date, first Survey 21 June 1901 Last Survey 28 March 1902

Reg. Book.

(Number of Visits 34)

on the Compania Transatlantica S.S. No. 16 now named "JOSE DE ARAMBURG"

Tons { Gross 2387  
Net

Master D. Jose Romero Built at Cadiz

By whom built Transatlantica &amp;c

When built 1902

Engines made at Renfrew

By whom made Lobnitz &amp; Co. Lim.

when made 1902

Boilers made at Renfrew

By whom made Lobnitz &amp; Co. Lim.

when made 1902

Registered Horse Power

Owners Compania gaditana de Navegacion del vapor,

Port belonging to Cadiz

Nom. Horse Power as per Section 28 202

Is Refrigerating Machinery fitted no

Is Electric Light fitted no

## ENGINES, &amp;c.—Description of Engines Triple expansion

No. of Cylinders three No. of Cranks 3

Dia. of Cylinders 21", 34", 56" Length of Stroke 36 Revs. per minute 82 Dia. of Screw shaft as per rule 11 1/2" Lgth. of stern bush 50"

Dia. of Tunnel shaft as per rule 10" Dia. of Crank shaft journals as per rule 10 1/2" Dia. of Crank pin 11 1/2" Size of Crank webs 22"x8" Dia. of thrust shaft under collars 11 1/2" Dia. of screw 13"-6" Pitch of screw 14-0 No. of blades 4 State whether moveable solid Total surface 75 sq. ft.

No. of Feed pumps 2" Diameter of ditto 4" Stroke 9" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 4" Stroke 9" Can one be overhauled while the other is at work yes

No. of Donkey Engines three Sizes of Pumps 5 1/4"x4"x5, 4"x2 1/2"x5, 9"x7 1/2"x9 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room No. 3-3-3 Ballast donkey No. 3 In Holds, &amp;c. Forehold No. 3, 2 1/2, 2 1/2, 2 1/2, afterhold No. 3, 2 1/2, 2 1/2

No. of bilge injections 1 sizes 5" Connected to condenser, or to circulating pump circulating Is a separate donkey suction fitted in Engine room &amp; 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 none

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 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 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 now Is the screw shaft tunnel watertight yes

Is it fitted with a watertight door yes worked from Deck

## BOILERS, &amp;c.—

(Letter for record R)

Total Heating Surface of Boilers 3150 sq. ft.

Is forced draft fitted no

No. and Description of Boilers 2 single ended return tube Working Pressure 170 lbs Tested by hydraulic pressure to 340 lbs

Date of test 6/3/02 Can each boiler be worked separately yes Area of fire grate in each boiler 54 sq. ft. No. and Description of safety valves to each boiler one pair direct spring Area of each valve 7.07 sq. in. Pressure to which they are adjusted 170 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 14-0 Length 10-3 Material of shell plates steel

Thickness 1 5/32 Range of tensile strength 27/32 Are they welded or flanged no Descrip. of riveting: cir. seams double lap long. seams treble butt

Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8" Lap of plates or width of butt straps 18"

Per centages of strength of longitudinal joint rivets 98.6 plate 84.3 Working pressure of shell by rules 174 lbs Size of manhole in shell 17"x13"

Size of compensating ring 9"x17 1/8" flanged No. and Description of Furnaces in each boiler 3 Morisons Material steel Outside diameter 40"

Length of plain part top 6" bottom 9" Thickness of plates crown 1" bottom 2" Description of longitudinal joint welded No. of strengthening rings 1

Working pressure of furnace by the rules 188 Combustion chamber plates: Material steel Thickness: Sides 7/8" Back 7/8" Top 7/8" Bottom 7/8"

Pitch of stays to ditto: Sides 8"x8" Back 7 1/2"x8" Top 7 1/2"x8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 171

Material of stays iron Diameter at smallest part 1.99 Area supported by each stay 64 sq. in. Working pressure by rules 232 lbs End plates in steam space:

Material steel Thickness 3/32 Pitch of stays 16"x16" How are stays secured 2 nuts Working pressure by rules 174 Material of stays steel

Diameter at smallest part 4.75 Area supported by each stay 256 sq. in. Working pressure by rules 186 Material of Front plates at bottom steel

Thickness 13/16 Material of Lower back plate steel Thickness 13/16 Greatest pitch of stays 14 1/2" with 7/8" doublers Working pressure of plate by rules 302 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 3/4"x4 3/4" Material of tube plates steel Thickness: Front 31/32 Back 13/16 Mean pitch of stays 9 1/2"

Pitch across wide water spaces 16" with 7/8" doublers Working pressures by rules 292 + 188 lbs Girders to Chamber tops: Material iron Depth and

thickness of girder at centre 7 x 13" Length as per rule 28 1/2" Distance apart 7 1/2" Number and pitch of Stays in each (2) 8"

Working pressure by rules 171 lbs Superheater or Steam chest; how connected to boiler none 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

oles 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

W814-0086

Lloyd's Register Foundation



## DONKEY BOILER—

No.

Description

Vertical

Made at Annan

By whom made

Cochran &amp; Co.

When made 15/11/01 Where fixed <sup>main boiler</sup> centre of vessel from

Working pressure 80 tested by hydraulic pressure to 160 No. of Certificate 6054 Fire grate area 20 1/4 Description of safety valves one pair spring

No. of safety valves two Area of each 7.07 Pressure to which they are adjusted 80 If fitted with easing gear ~~yes~~ If steam from main boilers enters the donkey boiler no

Dia. of donkey boiler 6'-6" Length 14'-0" Material of shell plates Steel Thickness 1/2" Range of tensile strength 27 to 32 Descrip. of riveting long. seams lap double

Dia. of rivet holes 27/32 Whether punched or drilled drilled Pitch of rivets 2 3/4

Lap of plating 4 8 Per centage of strength of joint Rivets 69.1 Plates 69.3 Thickness of shell crown plates 7/8 Radius of do. 3'-3" No. of Stays to do. no

Dia. of stays. ✓ Diameter of furnace Top 2 7 1/4 Bottom Length of furnace Thickness of furnace plates 19/32 Description 10

joint riveted Thickness of furnace crown plates 3 1/2 Stayed by ✓ Working pressure of shell by rules 140

Working pressure of furnace by rules 113 lbs Diameter of uptake 17" x 19" Thickness of uptake plates 7/8 Thickness of water tubes ✓

SPARE GEAR. State the articles supplied:— 2 top end bolts and nuts, 2 bottom end bolts and nuts, 1 set of coupling bolts, 2 main bearing bolts and nuts, feed and bilge pump valves bolts and nuts assorted, Iron of various sizes, and in addition 1 spare propeller and shaft complete.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops—	1901. Jan. 21. Feb. 4. 9. Aug. 7. 14. 19. 29. Sep. 4. 13. 18. 30. Oct. 21. 22. 23.
During erection on board vessel—	30. Nov. 12. 14. 18. 22. Dec. 6. 10. 23. 1902. Jan. 9. 30. Feb. 11. 18. 20. Mar. 3. 6. 10.
Total No. of visits	34

Is the approved plan of main boiler forwarded herewith ~~yes~~ no

General Remarks (State quality of workmanship, opinions as to class, &c. ☒ L M C. The workmanship is good, and I have seen the engines working for five hours to my entire satisfaction, in my opinion the Machinery is eligible for class proposed with date.

Material of screw shaft Steel Is the screw shaft fitted with a continuous liner the whole length of the stern tube no

If the liner is in more than one length are the joints burned ✓

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive no

If two liners are fitted, is the shaft lapped or protected between the liners painted

To complete this survey the engines and boilers have to be fitted on board, the safety valves adjusted under steam and the engines examined whilst at work.

This machinery so far as completed has been built under special survey, the materials and workmanship are of good description.

In my opinion this machinery will be eligible for the above notification with date when this survey has been completed.

This machinery has now been shipped to Cadiz where it is to be fitted on board.

This Survey completed, the engines and boilers have been fitted on board this vessel to my entire satisfaction, Safety valves adjusted under steam, and engines examined whilst working.

Fee £30. 1. 0

GL. 2/3 23. 1. 0 This amt. payable 12/12/02

Cadiz 10. 0. 0

this vessel is eligible for

THE RECORD - L M C 11-02

The amount of Entry Fee..

Special

Donkey Boiler Fee 2. 3. 0

Travelling Expenses (if any) £

TUES. 16 DEC 1902

Committee's Minute

Assigned

(Signed) A. McKeand

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

F.E.M. 3

Special 30. 1. 0

£23. 1. 0 paid at GL.

10/12/02

£4. 0. 0 paid at GL.

14/3/03

MACHINERY CERTIFICATE  
WRITTEN.

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