

## REPORT ON MACHINERY.

JES. 11 SEP 1900

Port of *Glasgow*

Received at London Office

No. in Survey held at *Paisley*Date, first Survey *11 May*Last Survey *13 Aug 1900*

Reg. Book.

350 on the *S S Emilia*(Number of Visits *13*)Master *Pio Francich*Built at *Port Glasgow* By whom built *Russell & Co.*Tons { Gross *3604*  
Net *2347*When built *1900*Engines made at *Greenock*By whom made *Rankin & Blackmore*when made *1900*Boilers made at *Paisley*By whom made *A & Craig & Co. Ltd.*when made *1900*

Registered Horse Power

Owners *Fratelli Cosulich*Port belonging to *Trieste*Nom. Horse Power as per Section 28 *300*Is Refrigerating Machinery fitted *no*Is Electric Light fitted *no*

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

No. of Cylinders

No. of Cranks

Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule as fitted Lgth. of stern bush  
 Dia. of Tunnel shaft as per rule as fitted Dia. of Crank shaft journals as per rule as fitted Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under collars  
 Dia. of screw Pitch of screw No. of blades State whether moveable Total surface  
 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, &amp;c.—

(Letter for record ☒)Total Heating Surface of Boilers *660 sq ft*Is forced draft fitted *no*No. and Description of Boilers *One Single Ended*Working Pressure *80 lb*Tested by hydraulic pressure to *160 lb*Date of test *13/8/00* Can each boiler be worked separately ☒Area of fire grate in each boiler *26 sq ft*

No. and Description of safety valves to

Each boiler *Two direct spring* Area of each valve *5.94 sq in*Pressure to which they are adjusted *80 lb*Are they fitted with easing gear *yes*Smallest distance between boilers or uptakes and bunkers or woodwork *Boilers under deck*Mean dia. of boilers *9-6 1/2*Length *8-0*Material of shell plates *Steel*Thickness *1/2* Range of tensile strength *28,320*Are they welded or flanged *Neither*Descrip. of riveting: cir. seams *Single Lap* long. seams *Double Lap*Diameter of rivet holes in long. seams *13/16*Pitch of rivets *3 7/16*Lap of plates or width of butt straps *5 3/4*Percentages of strength of longitudinal joint rivets *77.0*Working pressure of shell by rules *81 lb*Size of manhole in shell *16 x 12*Size of compensating ring *29 1/2 x 25 x 5/8*No. and Description of Furnaces in each boiler *Two, Plain*Material *Steel* Outside diameter *34*Length of plain part top *6.0* bottom *6.0*Thickness of plates crown *1 1/2* bottom *1 1/2*Description of longitudinal joint *Welded*No. of strengthening rings *None*Working pressure of furnace by the rules *87*Combustion chamber plates: Material *Steel* Thickness: Sides *1/2* Back *15/32* Top *7/32* Bottom *1/2*Pitch of stays to ditto: Sides *8 1/2 x 8 1/2* Back *9 x 9* Top *12 x 8 1/2*If stays are fitted with nuts or riveted heads *Nuts*Working pressure by rules *83 lb*Material of stays *Steel* Diameter at smallest part *9/16*Area supported by each stay *81*Working pressure by rules *93 lb*Material *Steel* Thickness *5/8*Pitch of stays *11 1/4 x 11 1/4*How are stays secured *Double Nuts*Working pressure by rules *88 lb*Diameter at smallest part *2.030*Area supported by each stay *206*Working pressure by rules *98*Thickness *5/8*Material of Front plates at bottom *Steel*Thickness *5/8*Greatest pitch of stays *9*Working pressure of plate by rules *135*Diameter of tubes *3 1/2*Pitch of tubes *4 1/4*Material of tube plates *Steel* Thickness: Front *5/8* Back *5/8*Pitch across wide water spaces *13*Working pressures by rules *82 lb*Girders to Chamber tops: Material *Steel* Depth andThickness of girder at centre *6 x 1 1/4*Length as per rule *23*Distance apart *12*Working pressure by rules *93 lb*Superheater or Steam chest; how connected to boiler *None*

Can the superheater be shut off and the boiler worked

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

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. *one* Description *See other side.*

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:—



The foregoing is a correct description,  
Manufacturer.

Dates of Survey { During progress of work in shops - - } 1900: - May. 11. 17. 28. 30. June. 8. 16. 27. July. 17. 23. 26,  
while board vessel - - } Aug. 2. 3. 13  
building { Total No. of visits 13.

Is the approved plan of main boiler forwarded herewith ☒

General Remarks (State quality of workmanship, opinions as to class, &c.) *This Donkey Boiler has been built under special survey the material and workmanship being of good quality, and was satisfactorily tested by hydraulic pressure to (160) one hundred and sixty pounds per square inch. This boiler has been forwarded to Port Glasgow to be fitted on board the S.S. Emilia.*

Certificate (if required) to be sent to \_\_\_\_\_  
(The Surveyors are requested not to write on or below this space for Committee's Minute.)

The amount of Entry Fee.. £ : : When applied for,  
Special .. .. £ : : 1/9/1900  
Donkey Boiler Fee .. .. £ 2 : 2 :  
Travelling Expenses (if any) £ : : When received, 3/9/1900

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

Committee's Minute *Glasgow. 10 SEP. 1900*

Assigned

*See J.K. Report 12785.*



© 2021

Lloyd's Register  
Foundation