

REPORT ON MACHINERY.

(Received in London Office 16/12/81)

5566
in Survey held at *Glasgow & Paisley* Date, first Survey *31st March* Last Survey *13th Feb^r 1881*
Book. *B. S. Riveglia* Tons *468.20*
on the *J. Rosasco* Built at *Paisley* When built *1881*
Engines made at *Glasgow* By whom made *Auten & Corbett* when made *1881*
Boilers made at *do* By whom made *do* when made *1881*
Registered Horse Power *40* Owners *C. Raggio* Port belonging to *Genoa*

ENGINES, &c.—

Description of Engines *Inverted Compound Surface Condensing*
Diameter of Cylinders *20" + 38"* Length of Stroke *30"* No. of Rev. per minute *80* Point of Cut off, High Pressure *5/8"* Low Pressure *1/4"*
Diameter of Screw shaft *7 1/4"* Diameter of Tunnel shaft *6 1/2"* Diameter of Crank shaft journals *7 1/4"* Diameter of Crank pin *7 1/4"* size of Crank webs *10" x 6 1/2"*
Diameter of screw *9" 6"* Pitch of screw *12" 0* No. of blades *11* state whether moveable *yes* total surface *26 sq. ft.*
No. of Feed pumps *one* diameter of ditto *3 1/4"* Stroke *14"* Can one be overhauled while the other is at work *yes*
No. of Bilge pumps *one* diameter of ditto *3 1/4"* Stroke *14"* Can one be overhauled while the other is at work *yes*
Where do they pump from *Bilges of Engine Room and All Compart^{ts} of Vessel*
No. of Donkey Engines *one* Size of Pumps *3 3/4" x 8"* Where do they pump from *Sea. Tanks. Bilges of Engine Room. All Compartments of Vessel & Condenser*
Are all the bilge suction pipes fitted with roses *yes* Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *yes*
No. of bilge injections *one* and sizes *2 1/2" dia* Are they connected to condenser, or to circulating pump *Circulating*
How are the pumps worked *by levers attached to crossheads of aft engine*
Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *Stop Valves & Cocks*
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 *yes*
Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes except in holds when loaded*
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*
When were stern tube, propeller, screw shaft, and all connections examined in dry dock *not been dry dock*
Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *top Platforms of Engines*

BOILERS, &c.—

Number of Boilers *one* Description *Cylindrical & Multitubular*
Working Pressure *45 lbs* Tested by hydraulic pressure to *150* Date of test *Nov^r 16th 1881*
Description of superheating apparatus or steam chest *Horizontal dome*
Can the superheater be worked separately *no* Can the superheater be shut off and the boiler worked separately *no superheater*
of square feet of fire grate surface in each boiler *33 sq. ft.* Description of safety valves *Direct spring*
to each boiler *two* area of each valve *0.3 in* Are they fitted with easing gear *yes*
No. of safety valves to superheater *none* area of each valve *none* are they fitted with easing gear *none*
Smallest distance between boilers and bunkers or woodwork *9 inches*
Diameter of boilers *11' 0"* Length of boilers *10' 0"* description of riveting of shell long. seams *Shub Lap* circum. seams *sub Lap*
Thickness of shell plates *25/32"* diameter of rivet holes *1 3/16"* whether punched or drilled *yes* pitch of rivets *4 1/4"*
Lap of plating *7 7/8"* per centage of strength of longitudinal joint *76 Pate, 89 in* working pressure of shell by rules *46 lbs*
Size of manholes in shell *15" x 12 1/2"* size of compensating rings *Angle Iron 3" x 3" x 1/2"*
No. of Furnaces in each boiler *two* outside diameter *3' 7"* length, top *7' 0"* bottom *8' 6"*
Thickness of plates *1/2"* description of joint *Sub Butt* if rings are fitted *L Bottom* greatest length between rings *6' 0"*
Working pressure of furnace by the rules *77 lbs*
Combustion chamber plating, thickness, sides *1/2"* back *1/2"* top *1/2"*
Pitch of stays to ditto sides *10" x 10"* back *10" x 10"* top *10" x 10"*
If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *77 lbs*
Diameter of stays at smallest part *1 1/4"* working pressure of ditto by rules *75 lbs*
End plates in steam space, thickness *1/16"* pitch of stays to ditto *15" x 15"* how stays are secured *Nuts*
Working pressure by rules *45 lbs* diameter of stays at smallest part *2"* working pressure by rules *117 lbs*
Front plates at bottom, thickness *9/16"* Back plates, thickness *9/16"* greatest pitch of stays *10 1/2" x 10"* working pressure by rules *88 lbs*

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Diameter of tubes $3\frac{1}{2}$ " pitch of tubes $4\frac{1}{4} \times 4\frac{1}{4}$ " thickness of tube plates, front $\frac{1}{16}$ " back $\frac{7}{8}$ "
 How stayed *Scallop stays* pitch of stays $14\frac{1}{4} \times 9\frac{1}{2}$ " width of water spaces $6\frac{1}{2}$ "
 Diameter of ~~Superheater~~ Steam chest $2' \cdot 9"$ length $5' \cdot 6"$
 Thickness of plates $\frac{1}{2}$ " description of longitudinal joint *Lap Single* diameter of rivet holes $\frac{7}{8}$ " pitch of rivets $2\frac{1}{4}$ "
 Working pressure of shell by rules 124 lb Diameter of flue --- thickness of plates ---
 If stiffened with rings --- distance between rings --- Working pressure by rules ---
 End plates of ~~superheater~~ or steam chest; thickness $\frac{1}{16}$ " How stayed *one round stay 2" dia*
 Superheater or steam chest; how connected to boiler *by flue*

DONKEY BOILER— Description *Circular Vertical Two Water Tubes in Fore & Aft*
 Made at *Glasgow* By whom made *Hutton & Corbett* when made *Tested 17. 11. 81*
 Where fixed *On Deck* working pressure 65 lb Tested by hydraulic pressure to 180 lb No. of Certificate 641
 Fire grate area $11 \cdot 89\text{ sq ft}$ Description of safety valves *Dead Spring* No. of safety valves *one* area of each $7 \cdot 89\text{ sq in}$
 If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no*
 Diameter of donkey boiler $4' \cdot 3"$ length $8' \cdot 0"$ description of riveting *Lap Single*
 thickness of shell plates $\frac{3}{8}$ " diameter of rivet holes $\frac{13}{16}$ " whether punched or drilled *punched*
 pitch of rivets $2\frac{1}{8}$ " lap of plating $3"$ per centage of strength of joint 61
 thickness of crown plates $\frac{7}{16}$ " stayed by *Six round stays 1\frac{3}{4}" dia*
 Diameter of furnace, top $3' \cdot 4\frac{1}{4}"$ bottom $3' \cdot 9\frac{3}{4}"$ length of furnace $4' \cdot 3"$
 thickness of plates $\frac{3}{8}$ " description of joint *Lap Single*
 thickness of furnace crown plates $\frac{7}{16}$ " stayed by *Six round stays 1\frac{3}{4}" dia*
 Working pressure of shell by rules 69 lb working pressure of furnace by rules 44 lb
 diameter of uptake $10"$ thickness of plates $\frac{3}{8}"$ thickness of water tubes $\frac{3}{8}"$

The foregoing is a correct description,
Wm Hutton & Corbett Manufacturer.

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

Machinery & Boilers constructed under special
 survey. Workmanship and Material of good
 quality. Tried under steam and found
 satisfactory. and in our opinion they are
 eligible to be classed **+** *Lloyds, M.C-12-81*

*This submitted that this
 vessel is eligible to have
 the notification of Lloyd's M.C
 recorded*
16/12/81

The amount of Entry Fee $\pounds 2 : 0 : 0$ received by me,
 Special $\pounds 10 : 10 : 0$
 Certificate (if required) $\pounds 0 : 0 : 0$ *14 Dec 1881*
 To be sent as per margin.
 (Travelling Expenses, if any, $\pounds 11 : 5 : 0$)

Committee's Minute Friday, December, 16th 18 81
Lloyd's

J.M. Hegar & Andrew B. Hume
 Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.