

SHIP'S NAME *Castilla* 25552, Iron.

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 16/2/80

Description *Vert. ind. Comp. Surface condensing*
Made by *Stanthorn*
When *1879* At *Stuwaetle*
Diameter of cylinder *27 1/2* Length of stroke *30*
No. of revolutions per minute *60*
Point of cut off *5/8*
Diameter of screw shaft *8*
Diameter of crank shaft journals *8 3/4*
Diameter of screw, or of ~~paddle wheel~~
Pitch of screw *Could not be ascertained*
No. of blades, Total surface
No. of bilge pumps *2* and sizes *4' x 15'*
Do they pump from each compartment *Engine room only*

Are all the bilge suction pipes fitted with roses *Yes*
No. of feed pumps *2* and sizes *4' x 15'*
What gauges are there attached to the engines and boilers ... *2 Steam, 1 Vacuum, 4 Pressure*
Description and size of Donkey Pumps ... *One double acting Cy 10 Ram 6 1/2 Stroke 9'*
Where do they pump from ... *Sea, Bilge, Tanks, after waste the peak - 10 deck. condenser & sea, and Boiler*
No. of bilge injections *One* and sizes *6" valve*
Are they connected to air, or circulating pumps *Circulating*
Is there a hand pump in the engine room *No. but handle to donkey*
Can it be worked by the main engines *No*
Is there a deck hose of sufficient length to reach to any part of the vessel *Yes.*

MAIN BOILERS.

Number *One* Description *Cor. multitubular*
Made by *C.D. Holmes & Co.*
When *May 1879* At *Hull*
Working pressure *70 lbs.*
Tested by hydraulic pressure to *140 lbs.*, Date *7/5.79*
Description of super-heating apparatus *None*
Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately *Yes*
Description and area of safety valves on each boiler *Two, spring loaded each 4 1/2 inch - 31.8*
No. of square feet of fire-grate surface in each boiler *50*
Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *Yes.*
Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. *all but rise of main tank*

DONKEY BOILER.

Description *Vertical, circular with internal furnace*
Where fixed *On deck*
Working pressure *43.8 lbs.*

Tested by hydraulic pressure to *140 lbs.*, Date *7/5.79*
Description and area of safety valves *One loaded 2 3/8" diam. area 10 sq. in. 2 1/4" - 8.4*
No. of square feet of fire grate *16 sq. ft.*

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *Yes*
Are they Kingston valves or common cocks ... *Both*
Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *No*
Are the discharge pipes above or below the deep water line *Below except donkey discharge*
Are they each fitted with a discharge valve on the plating of the vessel *Yes*

What pipes are carried through the bunkers *None*
How are they protected *Yes*
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *Yes*
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *No - the valve in donkey bilge is closed when ship returns - to be seen when ship returns*
Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *at the after end of tunnel is a wood hatch which can be scuttled down with door on bulkhead with handle in the storage or main deck.*

Manufacturer.

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or Wood)

Screw (or Paddle) Steam Vessel *Castilla* owned by *Jackson, Beaumont & Co.*
of the Port of *Hull* of *974* Tons Register, and *78* Registered Horse Power,
and that they have been carefully inspected and examined by me at *Hull*
and found to be at this date, viz., *18* in good order and safe working condition.

Amount of Fee for Survey ... £ : :
(Travelling Expenses, if any, £)

Engineer Surveyor to Lloyd's Register of Shipping.

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