

SHIP'S NAME *Castilla* 25552, Iron.

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 16/2/80

Description *Vert. ind. Comp. Surface condensing*
Made by *Stawthorn*
When *1871* At *Staveacre*
Diameter of cylinder *21 27 1/2 + 50* 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" + 8 3/4"*
Diameter of screw, or of ~~paddle wheel~~
Pitch of screw } *could not be*
No. of blades, Total surface } *ascertained*
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 ... } *Steam, Vacuum, & pressure*
water gauges on Boilers
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 well*
the peak - stoke condenser & sea,
and Boilers
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 dia*
each = 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 _____, Date _____
Description and area of safety valves } *One loaded 2 3/8" dia area*
loaded wt. 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.*

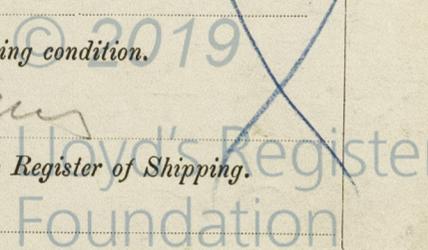
What pipes are carried through the bunkers *None*
How are they protected _____
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock _____
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge } *No - the valves in donkey bilge*
are in such a position that
no return can be made and
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 stowage 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 *98* 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, £)

J.B. Stevens
Engineer Surveyor to Lloyd's Register of Shipping.



No. 9-1000, 2

IRON 490 - 0085