

ENGINES.

Rec 5/11/99

Report (if any) on Hull of Vessel. Port to. Hark. P. 2

Are all the bilge suction pipes fitted with roses *Yes*

No. of feed pumps *Two* and sizes *4 1/2 x 33" the Single Acting*

What gauges are there attached to the engines and boilers ... } *Four Steam*
One Vacuum

Description and size of } *No 1 pump 4 1/2" dia x 9" stroke Double Acting*
Donkey Pumps ... } *No 2 " 5 1/2" " x 8" " " "*
No 1 Pumps from ballast tanks, sea, wings & Centre

Where do they pump from } *of engine room, after well & fore hold. No 2 from*
sea, hot well, wings of engine room, fore hold & after well

No. of bilge injections *1* and sizes *6" inside*

Are they connected to air, or circulating pumps *Circulating Pump*

Is there a hand pump in the engine room *Donkeys work by hand*

Can it be worked by the main engines *No*

Is there a deck hose of sufficient length } *Yes*
to reach to any part of the vessel }
in engine room only

Number *Three* Description *Cylinder direct, Multitubular*
Made by *Meyers Glais. Co.*
When *October 1877* At *Stockton*
Working pressure *46 lbs*
Tested by hydraulic pressure to *152 lbs*, Date *5th Sept-1877*
Description of super-heating } *None*
apparatus }
Can each boiler be worked separately *Yes*

Can the super-heater be shut off and } *No Superheaters*
the boilers worked separately }
Description and area of *Two spring valves on each boiler*
safety valves on each }
boiler } *Area of two valves 19.2 sq on*
No. of square feet of fire-grate } *38 sq feet*
surface in each boiler }
Are there separate blow off and } *Yes*
brine cocks on each boiler, }
independent of those }
on the vessel's skin }
Are all pipes, cocks, roses, and pumps in } *All except suction pipes & pump in*
connection with the machinery ac- } *hered to be shut off*
cessible at all times }

BOILER Made by H. Porter, Bowditch & Porter Works

Description *Vertical Water Tubes in Furnaces*
Where fixed *In Stokehole*
Working pressure *40 lbs*

Tested by hydraulic pressure to 140 lbs, Date 10th Sept. 1877
Description and area of safety valves Two direct weighted valves 2³/₄ dia
No. of square feet of fire grate 15.9 sq feet Total area 8.8 sq ft

Are all connections with the sea } direct on the skin of the ship }	Yes
Are they Kingston valves } or common cocks ... }	Stop valves and cocks
Are they fixed sufficiently high on } the ship's side to be seen } without lifting the stoke hold } plates	Yes
Are the discharge pipes above or } below the deep water line }	
Are they each fitted with a discharge } valve and the plating of the vessel }	Yes

What pipes are carried through the bunkers	<i>None</i>
How are they protected	<i>—</i>
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock	<i>Never</i>
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge	<i>Yes</i>
Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead	<i>Yes</i>

Manufacturers of Engines & Main Motors only

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 *De Grey* owned by *The General Steam Navigation Company* of the Port of *London* of *1095.23* Tons Register, and *250* Registered Horse Power, and that they have been carefully inspected and examined by me at *Stockton* and found to be at this date, viz., *30th October 1844* in good order and safe working condition.

Amount of Fee for Survey £12:10:0
(Travelling Expenses, if any, £ *Certificate* 0:5:0)

Engineer Surveyor to Lloyd's Register of Shipping.