

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Report (if any) on Hull of Vessel. Port Hamburg No. 164

Description Compound inverted direct acting
Made by Richardson & Sons
When 1872 At Hartlepool
Diameter of cylinders 33 & 61 Length of stroke 33
No. of revolutions per minute 60
Point of cut off half stroke
Diameter of screw shaft 11
Diameter of crank shaft journals 11
Diameter of screw, or of paddle wheel 13'-3"
Pitch of screw 15'-6"
No. of blades, 4 Total surface
No. of bilge pumps 2 and sizes 7" dia. x 8"
Do they pump from each compartment yes & from ballast tanks

Are all the bilge suction pipes fitted with roses yes
No. of feed pumps 2 and sizes 3 9/16 dia x stroke 25 1/2
What gauges are there attached to the engines and boilers Bourdon's & Gablers systems.
Description and size of Donkey Pumps 2 off. steam cylinders 11" dia & 6 3/8" dia 9" stroke & 7" stroke
Where do they pump from each hold & from ballast tanks.
No. of bilge injections 1 and sizes 4 3/4" interl. dia.
Are they connected to air, or circulating pumps to the latter
Is there a hand pump in the engine room yes
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 1 Description cyl: double ended, tubular
Made by Richardson & Sons
When 1872 At Hartlepool
Working pressure 60 lbs
Tested by hydraulic pressure to 120 lbs, Date 1873
Description of super-heating apparatus none
Can each boiler be worked separately

Can the super-heater be shut off and the boilers worked separately
Description and area of safety valves on each boiler two direct loaded, each 5 1/2" dia, total area 11 47.51 sq in
No. of square feet of fire-grate surface in each boiler 83 sq feet
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 yes

DONKEY BOILER.

Description cyl: vertical with 3 Galloway tubes, smoke pipe through stoke hole
Where fixed in foreward stoke hole
Working pressure 30 lbs
Tested by hydraulic pressure to 60 lbs, Date 1873

Description and area of safety valves two off direct loaded 1 lever each 2 1/4" dia, total area 7.95 sq in
No. of square feet of fire grate 14 sq feet

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 screw valve for fire pump others common cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates In the engine room yes in stoke hole no
Are the discharge pipes above or below the deep water line above.
Are they each fitted with a discharge valve on the plating of the vessel yes

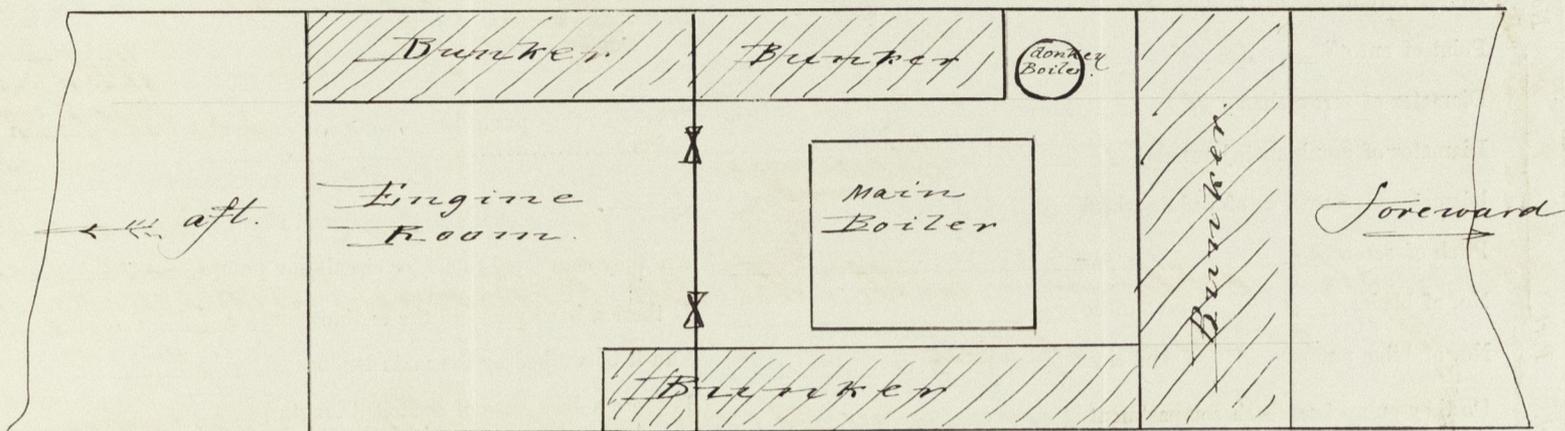
What pipes are carried through the bunkers none
How are they protected
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock 3rd & 4th August 1876.
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge yes
Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead yes.

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 "Memphis" owned by the "Kosmos" Steam Ship Co. of the Port of Hamburg of 946 Tons Register, and 150 Registered Horse Power, and that they have been carefully inspected and examined by me at Hamburg and found to be at this date, viz., the 8th August 1876 in good order and safe working condition.

Ernst Voss Engineer Surveyor to Lloyd's Register of Shipping.

16772 Iron



Arrangement of bunkers.