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LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 26/3/97

Report (if any) on Hull of Vessel. Port Newcastle No. 12

Description 4 Cylinder Compound Beam'd S.C.
 Made by R & W Hawthorn
 When June 14-1869 At Newcastle
 Diameter of cylinder 21" x 38" Length of stroke 30"
 No. of revolutions per minute 65
 Point of cut off 16"
 Diameter of screw shaft 8"
 Diameter of crank shaft journals 4 3/4"
 Diameter of screw, or of paddle wheel 11.0"
 Pitch of screw 15 ft increasing to 17 ft
 No. of blades, (4) Total surface 36.5 sq. ft.
 No. of bilge pumps (2) and sizes 4" dia, 17" stroke,
 Do they pump from each compartment Engin Room

Are all the bilge suction pipes fitted with roses Yes
 No. of feed pumps (2) and sizes 4" dia, 18" stroke,
 What gauges are there attached to the engines and boilers ... (1) on each boiler Engin room
(1) in stoke hold
(1) vacuum gauge Engin room
 Description and size of Donkey Pumps ... No (1) 4" dia, 8" stroke D.A
(2) 8" dia, 12" stroke D.A
 Where do they pump from ... No 1 Boiler Donkey Sea Eng-Rooms
+ Tanks
No 2 Ballast donkey from Tanks
+ Engin room bilge
 No. of bilge injections (1) and sizes 4" dia
 Are they connected to air, or circulating pumps circulating
 Is there a hand pump in the engine room No
 Can it be worked by the main engines No 1 donkey used
 Is there a deck hose of sufficient length to reach to any part of the vessel Yes

MAIN BOILERS.

Number (2) Description Cylindrical Tubular
 Made by Pelmer & Coop
 When March 18 74 At Larva or Lyne
 Working pressure 45 lbs per sq. inch
These Boilers sufficient for 80 lbs per sq. inch
 Tested by hydraulic pressure to 150 lbs, Date 17th Jan 74
 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 None
 Description and area of safety valves on each boiler ... (2) Semi safety valves by Messrs Pelmer & Coop
each 3 1/2" dia = 17.5 sq. inches
 No. of square feet of fire-grate surface in each boiler 33.0 sq. ft.
 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 Vertical Cyl- 3 cross tubes
 Where fixed Upper deck
 Working pressure 46.8 lbs
Made by Clarke Chapman & Gurney Gateshead

Tested by hydraulic pressure to 100 lbs, Date 6th Jan 74
 Description and area of safety valves (1) dead weight = 3 1/2" dia 8.2
 No. of square feet of fire grate 15.9 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 ... (2) Stop valves rest are common 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 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 March 15th 1874
 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 No tunnel

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 "Mercury" owned by Messrs Hall Brothers of the Port of Newcastle of 555 Tons Register, and 125 Registered Horse Power, and that they have been carefully inspected and examined by me at Larva on 19th March 1874 in good order and safe working condition.

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

George W. Marshall
 Engineer Surveyor to Lloyd's Register of Shipping.

North Shields

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