

18052 Lm

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 26/3/77

Report (if any) on Hull of Vessel. Port Hamburg No. 189

Description *Compound direct acting, H. Cyl. on top of L.P.* Are all the bilge suction pipes fitted with roses *yes*
 Made by *Henderson Coulborne & Co.* No. of feed pumps *2* and sizes *6" dia x 11" stroke*
 When *1872* At *Renfrew* What gauges are there attached to the engines and boilers ... *Bourdon's patent*
 Diameter of cylinders *30" x 60"* Length of stroke *4'-0" (4 cyls)* Description and size of Donkey Pumps ... *direct acting in vac. W. steam cyl 9" dia x 9" stroke; pump double acting 5" dia x 9" stroke*
 No. of revolutions per minute *45* Where do they pump from ... *from each compartment*
 Point of cut off *half stroke* No. of bilge injections *1* and sizes *3" interal*
 Diameter of screw shaft *11 1/2"* Are they connected to air, or circulating pumps *to the latter*
 Diameter of crank shaft journals *12 1/2"* Is there a hand pump in the engine room *yes*
 Diameter of screw, ~~or of paddle wheel~~ *17'-0"* Can it be worked by the main engines *no*
 Pitch of screw *24'-0" mean* Is there a deck hose of sufficient length to reach to any part of the vessel *yes*
 No. of blades, *4* Total surface *—*
 No. of bilge pumps *2* and sizes *6" dia. x 11" stroke*
 Do they pump from each compartment *yes*

MAIN BOILERS.

Number *2* Description *cyl. tubular, double ended.* Can the super-heater be shut off and the boilers worked separately *no*
 Made by *Henderson Coulborne & Co.* Description and area of safety valves on each boiler ... *2 lever loaded each 6" dia 56.5 sq" total area*
 When *1872* At *Renfrew* No. of square feet of fire-grate surface in each boiler *78 sq feet*
 Working pressure *60 lbs* Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *yes*
 Tested by hydraulic pressure to *120 lbs*, Date *20th March 1876* Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. *yes*
 Description of super-heating apparatus *horizontal cylindrical steam chamber surrounded by uptake*
 Can each boiler be worked separately *yes*

DONKEY BOILER.

Description *vertical, cylindrical, uptake through steam space.* Tested by hydraulic pressure to *80 lbs*, Date *26th Sept. 76*
 Where fixed *in fore stoke hole* Description and area of safety valves *one valve direct loaded 3" dia 7 sq" area*
 Working pressure *40 lbs* No. of square feet of fire grate *14.7 sq feet*

PIPES, COCKS, AND CONNECTIONS.

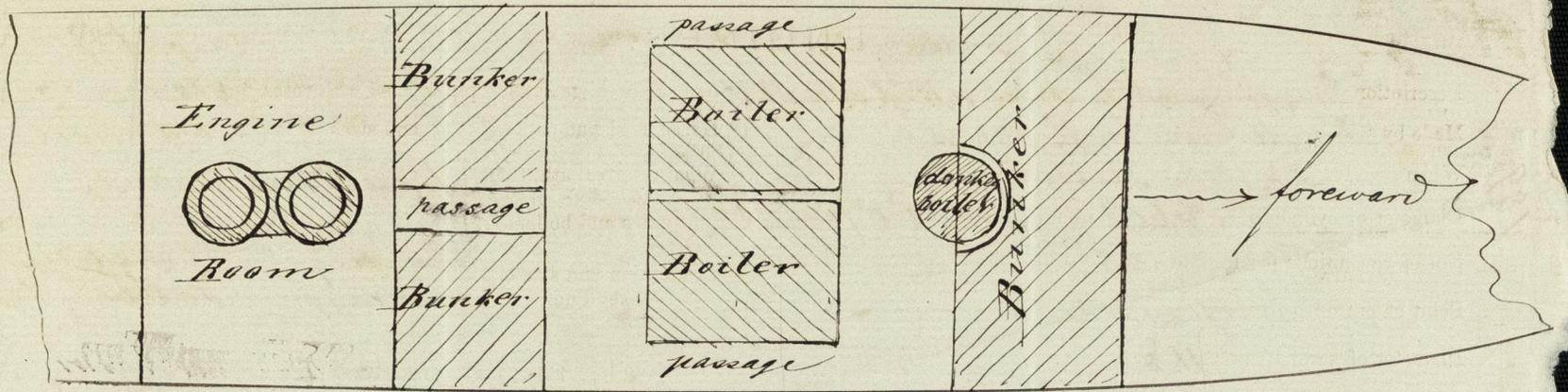
Are all connections with the sea direct on the skin of the ship *yes* What pipes are carried through the bunkers *main & donkey steam pipes*
 Are they Kingston valves or common cocks ... *common cocks & screw valves for circ. pump* How are they protected *by 3" iron casing, strengthened by angle iron*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *most of them* When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *10th & 12th March 1877*
 Are the discharge pipes above or below the deep water line *above* Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *yes*
 Are they each fitted with a discharge valve on the plating of the vessel *yes* Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *not water tight but fitted in the water tight sluice door in bulkhead*

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 "*Galatea*" owned by *the Deutsche Dampfschiffshandels* of the Port of *Hamburg* of *1200* Tons Register, and *300* Registered Horse Power, and that they have been carefully inspected and examined by me at *Hamburg* and found to be at this date, viz., *20th March 1877*, in good order and safe working condition.

Amount of Fee for Survey ... £ *10:0:0*
 (Travelling Expenses, if any, £ *—*)

Ernest Vogt
 Engineer Surveyor to Lloyd's Register of Shipping.



Arrangement of Bunkers.