

19395. Iron.

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rev 30/10/77

No. 3899  
Form No. 1  
Report on Engines No. 29

Description *Compound Inverted Surface Condensing*  
 Made by *Messrs J. Richardson & Sons*  
 When *Oct 18/77* At *Hartlepool*  
 Diameter of cylinder *28 x 53* Length of stroke *33*  
 No. of revolutions per minute *65 about*  
 Point of cut off *1/2 stroke*  
 Diameter of screw shaft *9"*  
 Diameter of crank shaft journals *9"*  
 Diameter of screw, ~~or of paddle wheel~~ *13" 0"*  
 Pitch of screw *15 6*  
 No. of blades, *4* Total surface *55 sq ft*  
 No. of bilge pumps *2* and size *2 1/2 x 3 1/2" Single Acting*  
 Do they pump from each compartment *from wings & Centre of engine room to reach to any part of the vessel after upll*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *2* and sizes *3 x 2 1/2" Single Acting*  
 What gauges are there attached to the engines and boilers ... } *Two Steam*  
 } *One Vacuum*  
 Description and size of Donkey Pumps ... } *2 pumps 1 1/2 dia x 9" stroke Double Acting*  
 } *1 1/2 " 3 1/2 x 1 1/2 "*  
 } *Draws from ballast tanks, engine room*  
 } *and sea, No. 2 draws from wings & Centre of engine room, after well, sea & hatch*  
 Where do they pump from .....  
 No. of bilge injections *1* and sizes *4 1/2 dia*  
 Are they connected to air, or circulating pumps *Recirculating pumps*  
 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*

### MAIN BOILERS.

Number *One* Description *Cylindrical Multitubular*  
 Made by *Messrs J. Richardson & Sons*  
 When *Oct 18/77* At *Hartlepool*  
 Working pressure *45 lbs*  
 Tested by hydraulic pressure to *150 lbs*, Date *1 Sept 1877*  
 Description of super-heating apparatus ..... } *None*  
 Can each boiler be worked separately *Only one boiler in ship*

Can the super-heater be shut off and the boilers worked separately } *No Superheater*  
 Description and area of safety valves on each boiler ..... } *Two Spring safety valves on boiler*  
 } *Area of two valves 35.4 sq in*  
 No. of square feet of fire-grate surface in each boiler } *57 square 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 ..... } *All except suction pipes & roses in ballast tanks*

### DONKEY BOILER.

Description *Vertical Water tubes in furnace*  
 Where fixed *In stoke hold*  
 Working pressure *65 lbs*

Made by *Geo Dimpson West of Hartlepool*  
 Tested by hydraulic pressure to *130 lbs*, Date *9 Sept 1877*  
 Description and area of safety valves *One direct & one indirect & weight*  
 No. of square feet of fire grate *14 sq feet* Total area *79*

### 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 ... } *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 } *Below*  
 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 ..... } *None*  
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock } *New*  
 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 } *Sluice door fitted*

*Richardson & Sons* Manufacturer of Engines & Steam Boilers only  
*M. Chubb*

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 *"Amanda"* owned by *Otto Luchmann* of the Port of *Hartlepool* of *1260.95* Tons Register, and *110* Registered Horse Power, and that they have been carefully inspected and examined by me at *Hartlepool* and found to be at this date, viz., *27th October* 18*77* in good order and safe working condition.

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

*James I. Ham*  
 Engineer Surveyor to Lloyd's Register of Shipping.