

LOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 8/5/79

Description *Compound Inverted Surface Condensing*
 Made by *M^r John Dickenson*
 When *April 1879* At *Sunderland*
 Diameter of cylinder *36" & 68"* Length of stroke *44"*
 (one of each) No. of revolutions per minute *58*
 Point of cut off *1/2 Stroke*
 Diameter of screw shaft *11 1/2"*
 Diameter of crank shaft journals *11 1/2"*
 Diameter of screw, or of paddle wheel *16" dia.*
 Pitch of screw *18" x 6"*
 No. of blades, *11* Total surface *76 sq ft.*
 No. of bilge pumps *2* and sizes *4 1/2" x 2 1/2"*
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *2* and sizes *4 1/2" x 2 1/2"*
 What gauges are there attached to the engines and boilers ... *1 Pressure + 1 Vac^{um} in Cylin^{der} room*
1 " to each boiler in stokehold
 Description and size of Donkey Pumps ... *1 double acting 9" x 15" stroke*
1 single " 4 1/2" x 6"
Large one draws from sea. Tanks.
 Where do they pump from ... *bilges, aft well & through Condenser.*
Small one, sea & Hotwell
 No. of bilge injections *1* and sizes *4"*
 Are they connected to air, or circulating pumps *To Circulating*
 Is there a hand pump in the engine room *Yes. 4" x 8" stroke*
 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 *2* Description *Cylindrical & Multitubular*
 Made by *M^r John Dickenson*
 When *April 1879* At *Sunderland*
 Working pressure *45 lbs*
 Tested by hydraulic pressure to *150 lbs*, Date *17/2/79*
 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 *No Super heater*
 Description and area of safety valves on each boiler ... *2 Spring valves 4" dia*
Area 25.12 sq in
 No. of square feet of fire-grate surface in each boiler *4.4 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*

By *M^r John Robinson* Middlesbrough

DONKEY BOILER.

Description *Circular Vertical 4 cross tubes*
 Where fixed *on deck*
 Working pressure *50 lbs per sq in*

Tested by hydraulic pressure to *100 lbs*, Date *3/3/79*
 Description and area of safety valves *1 loaded direct & 1 lever*
area = 14" sq in
 No. of square feet of fire grate *2.6 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 ... *Stop Valves + 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 *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 *Yes*

John Dickenson Manufacturer. *Except of the Donkey Boilers*

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 *"Ashburne"* owned by *J. S. Barwick* of the Port of *Sunderland* of *1613.31* Tons Register, and *300* Registered Horse Power, and that they have been carefully inspected and examined by me at *Sunderland* and found to be at this date, viz., *21st April 1879* in good order and safe working condition.

Amount of Fee for Survey ... *£15.00*
 Certificate ... *5*
 (Travelling Expenses, if any, £1.5) *£15.50*

J. G. Gregor Engineer Surveyor to Lloyd's Register of Shipping.
 Lloyd's Register of Shipping Foundation
 Received 1/5/79

This vessel appears to be eligible
to be assigned the usual
Machinery Certificate and to
be marked Lloyd's MC 479,
the engine boiler being
in all respects in
accordance with
the Rules.

M
9.5.79

