

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

1958 Iron

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 12/11/77

Report (if any) on Hull of Vessel. Port: Sunderland. No. 11,2187

Description *Mounted Compound, Surface Condensing.*
 Made by *Mr. J. Dickinson*
 When *Oct 18 77* At *Sunderland.*
 Diameter of cylinder $\text{\$ } 27 \times 50$ Length of stroke *33.*
 No. of revolutions per minute *about 65.*
 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 *12.9."*
 Pitch of screw *16.6."*
 No. of blades, *4* Total surface *40 sq. feet.*
 No. of bilge pumps *2* and sizes *3 1/2 x 16 1/2 stroke.*
 Do they pump from each compartment *yes*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *2* and sizes *3 1/2 x 16 1/2 stroke.*
 What gauges are there attached to the engines and boilers ... } *2 Steam*
 } *1 Vacuum*
 Description and size of Donkey Pumps ... } *2 mounted. large one 8 x 10 stroke - A*
 } *double actinf. small one 4 1/2 x 6 stroke - B.*
 } *A, from each compartment,*
 } *tanks and condenser*
 Where do they pump from } *B, from sea & hotwell*
 No. of bilge injections *two* and sizes *3 1/2 diameter.*
 Are they connected to air, or circulating pumps *Circulating*
 Is there a hand pump in the engine room *yes*
 Can it be worked by the main engines
 Is there a deck hose of sufficient length to reach to any part of the vessel } *yes*

MAIN BOILERS.

Number *One* Description *Cylindrical & Multitubular.*
 Made by *Mr. J. Dickinson.*
 When *Oct 18 77* At *Sunderland.*
 Working pressure *70 lbs*
 Tested by hydraulic pressure to *140 lbs.*, Date *Sept 28/77*
 Description of super-heating apparatus } *none*
 Can each boiler be worked separately *only 1 boiler.*

Can the super-heater be shut off and the boilers worked separately }
 Description and area of safety valves on each boiler } *Mr Dickinson's patent. 2 off*
 } *4 dia - 25.2 sq. ins*
 No. of square feet of fire-grate surface in each boiler } *46 1/4.*
 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, except roses in holds & tanks*

DONKEY BOILER.

Description *Vertical*
 Where fixed *Stoke hold*
 Working pressure *50 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *Sept 11/77*
 Description and area of safety valves } *one 8 W. 1 Lever each*
 } *inches diam.*
 No. of square feet of fire grate *12.*

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 ... } *Valves and cocks*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates } *all on turn of pipe*
 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 }
 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 Dickinson Manufacturer.
Fred W. Green

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 "*Britannia*" owned by *J. W. Taylor & Son* of the Port of *Sunderland* of *631.7* Tons Register, and *98* Registered Horse Power, and that they have been carefully inspected and examined by me at *Sunderland* and found to be at this date, viz., *November 1st* 18 *77* in good order and safe working condition.

Amount of Fee for Survey $\text{\$ } 4 : 18 : -$
 (Travelling Expenses, if any, $\text{\$ } 5 : 3$)

William Allison & J. Milton
 Engineer Surveyor to Lloyd's Register of Shipping.

Received 2/11/77