

17734 Iron

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rec 1/3/77

Description *Compound Inverted 2 Cyl<sup>rs</sup> S. C.*  
 Made by *George Clark Sunderland*  
 When *Jan'y 1873* At *Sunderland*  
 Diameter of cylinders *26" & 44"* Length of stroke *33"*  
 No. of revolutions per minute *60*  
 Point of cut off *3/4*  
 Diameter of screw shaft *8 1/4"*  
 Diameter of crank shaft journals *8 1/4"*  
 Diameter of screw, or of paddle wheel *12 feet*  
 Pitch of screw *14 feet*  
 No. of blades, *(14)* Total surface *39 sq. feet*  
 No. of bilge pumps *(2)* and sizes *4 1/4" dia, 16" stroke*  
 Do they pump from each compartment *Engine room, aft. Well - Main hold & Tanks*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *(2)* and sizes *4 1/4" dia 16" stroke*  
 What gauges are there attached to the engines and boilers ...  
*1 Steam gauge Engine room stoke hold*  
*1 Vacuum gauge in engine room*  
 Description and size of Donkey Pumps ...  
*N<sup>o</sup> 1 Ballast pump 6" dia, 12" stroke*  
*(2) Boiler pump 4" dia, 8" stroke*  
 Where do they pump from ...  
*N<sup>o</sup> 1 from engine room bilge Tanks, main hold, and aft. Well*  
*N<sup>o</sup> 2 from sea only*  
 No. of bilge injections *(1)* and sizes *3 3/4" 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 *Donkey used*  
 Is there a deck hose of sufficient length to reach to any part of the vessel? *Yes*

### MAIN BOILERS.

Number *(1)* Description *Cylindrical Tubular*  
 Made by *George Clark*  
 When *1873* At *Sunderland*  
 Working pressure *60 lbs.*  
 Tested by hydraulic pressure to *120*, Date *Jan'y 73*  
 Description of super-heating apparatus *None Done*  
 Can each boiler be worked separately *1 Boiler only*

Can the super-heater be shut off and the boilers worked separately? *(1) Boiler*  
 Description and area of safety valves on each boiler ...  
*(1) Low & High 6" dia = 28.2 sq inches*  
 No. of square feet of fire-grate surface in each boiler *40 sq 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 rose in Main hold*

### DONKEY BOILER.

Description *Vertical Tubular 2 cross tubes*  
 Where fixed *Upper Deck*  
 Working pressure *40 lbs per sq inch*

Tested by hydraulic pressure to *not ascertained*, Date *—*  
 Description and area of safety valves *1 Low & High 1 dead weight = 4.5 sq inches and*  
 No. of square feet of fire grate *12.5 sq feet*

### 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 ...? *1 Stop Valve, rest common Cocks*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ...? *Below stoke hold plates Engine room floor*  
 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? *Propeller & connections Examined Jan'y - 1877*  
 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*

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 *"Ullswater"* owned by *H. Strachan & Co* of the Port of *Lanark* of *548* Tons Register, and *90* Registered Horse Power, and that they have been carefully inspected and examined by me at *South Shields & Tyne Docks* and found to be at this date, viz., *July 23<sup>d</sup> 1877* in good order and safe working condition.

Amount of Fee for Survey ... .. £ *—*

(Travelling Expenses, if any, £ *—*)

*George W. Manuel*  
 Engineer Surveyor to Lloyd's Register of Shipping.  
*North Shields*

Report (if any) on Hull of Vessel. Port Newcastle No. 17429