

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

No. 4272  
Port Glasgow  
Report (if any) on Hull of Vessel.

Description *Common Condensing*  
 Made by *Richardson*  
 When *1863* At *Glasgow*  
 Diameter of cylinder *38"* Length of stroke *24"*  
 No. of revolutions per minute *60*  
 Point of cut off \_\_\_\_\_  
 Diameter of screw shaft *4 1/2"*  
 Diameter of crank shaft journals *4 1/2"*  
 Diameter of screw, ~~or paddle wheel~~ \_\_\_\_\_  
 Pitch of screw *not ascertained*  
 No. of blades, *Three* Total surface \_\_\_\_\_  
 No. of bilge pumps *two* and sizes *3 3/8" x 12" stroke*  
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *two* and sizes *3 3/8" x 12" stroke*  
 What gauges are there attached to the engines and boilers ... *One Steam and one Vacuum*  
 Description and size of Donkey Pumps ... *Single acting*  
 Where do they pump from ... *From the Sea & Bilge*  
 No. of bilge injections *One* and sizes *2 3/4"*  
 Are they connected to air, or circulating pumps *to Air pumps*  
 Is there a hand pump in the engine room *Yes*  
 Can it be worked by the main engines *No. It is worked from Deck.*  
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

### MAIN BOILERS.

Number *One* Description *Iron Bottomed Flat sided & rached top with dome*  
 Made by *Walspole, Webb & Bealey*  
 When *1871* At *Dublin*  
 Working pressure *15 lbs*  
 Tested by hydraulic pressure to \_\_\_\_\_, Date \_\_\_\_\_  
 Description of super-heating apparatus *None*  
 Can each boiler be worked separately \_\_\_\_\_

Can the super-heater be shut off and the boilers worked separately \_\_\_\_\_  
 Description and area of safety valves on each boiler *Direct weighted (two) each 29 1/4" area*  
 No. of square feet of fire-grate surface in each boiler *46 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. They are under Engine Room platform*

### DONKEY BOILER.

Description *Round Vertical*  
 Where fixed *On Main Deck*  
 Working pressure *35 lbs*

Tested by hydraulic pressure to *not ascertained* Date \_\_\_\_\_  
 Description and area of safety valves *two, One Lever & height 7 each 4 1/2" area One Direct weighted 7 area*  
 No. of square feet of fire grate *15 ft*

### PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *They are fitted on Coat Iron Stools*  
 Are they Kingston valves or common cocks ... *Screw down valves & cocks*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *No. the Ash cooking cock is under plates the others are under C. R. Platform*  
 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 *July 5<sup>th</sup> 1876*  
 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 *It is not watertight but has door fitted on 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 *"Alexandra"* owned by *Palmer & Murphy* of the Port of *Dublin* of *363* Tons Register, and *90* Registered Horse Power, and that they have been carefully inspected and examined by me at *Glasgow* and found to be at this date, viz., *July 14<sup>th</sup> 1876* in good order and safe working condition.

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