

## LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

## ENGINES.

Description *Compound, Inverted, Vertical Acting Surface Cond<sup>r</sup>* Are all the bilge suction pipes fitted with roses *—*  
 Made by *Messrs Palmers Shipbuilding and Iron Co (L<sup>td</sup>)* No. of feed pumps *2* and sizes *5 dia x 10 stroke Single Acting*  
 When *July 1876* At *Falmouth* What gauges are there attached to the engines and boilers ... *2 Steam*  
 Diameter of cylinders *one 26 " one 51 "* Length of stroke *33 "* *2 Vacuum*  
 No. of revolutions per minute *About* Description and size of Donkey Pumps ... *N<sup>o</sup> 1 - Pump 8 dia x 12 stroke Double Acting*  
 Point of cut off *About 3/5<sup>ths</sup> of stroke* *N<sup>o</sup> 2 - " 4 " x 8 " "*  
 Diameter of screw shaft *9 1/2 dia of Tunnel shaft 9 "* Where do they pump from ... *N<sup>o</sup> 1 - Draws from ballast tanks*  
 Diameter of crank shaft journals *9 1/2 "* *one engine from N<sup>o</sup> 2 draws from fore hold*  
 Diameter of screw, ~~or of paddle wheel~~ *13 " 6 "* No. of bilge injections *1* and sizes *6 1/4 dia*  
 Pitch of screw *15 " 0 "* Are they connected to air, or circulating pumps *Circulating Pump*  
 No. of blades, *4* Total surface Is there a hand pump in the engine room *Small donkey works by hand*  
 No. of bilge pumps *2* and sizes *4 dia x 15 stroke Single Acting* Can it be worked by the main engines *No*  
 Do they pump from each compartment *from all compartments except fore peak* Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

## MAIN BOILERS.

Number *Two* Description *Round Multitubular* Can the super-heater be shut off and the boilers worked separately *No*  
 Made by *Messrs Palmers Shipbuilding and Iron Co (L<sup>td</sup>)* Description and area of safety valves on each boiler ... *Adams Spring Two on each boiler*  
 When *July 1876* At *Falmouth* *3 1/4 dia Total area 16 sq in*  
 Working pressure *45 lbs* No. of square feet of fire-grate surface in each boiler *32.5 sq feet*  
 Tested by hydraulic pressure to *150 lbs*, Date *June 1876* Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *Yes*  
 Description of super-heating apparatus *Annular Superheater* Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times *Suction pipes in hold not accessible when vessel is loaded*  
 Can each boiler be worked separately *Yes*

## DONKEY BOILER.

Description *Vertical Water tubes in furnace* Tested by hydraulic pressure to *100 lbs* Reported, Date *May 76*  
 Where fixed *On deck* Description and area of safety valves *Adams Spring 3.11016 sq in*  
 Working pressure *45 lbs* No. of square feet of fire grate *1/2 sq feet*

## PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *Yes* What pipes are carried through the bunkers *None*  
 Are they Kingston valves or common cocks ... *Stop valves and common Cocks* How are they protected *"*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *Yes* When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *Now*  
 Are the discharge pipes above or below the deep water line *main & ballast below, bilge above* Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *Yes*  
 Are they each fitted with a discharge valve on the plating of the vessel *Yes* Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *Yes*

FOR *Palmers Shipbuilding & Iron Co L<sup>td</sup>* 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 *Stelling* owned by *Messrs John Fennell & Son*  
 of the Port of *London* of *565.44* Tons Register, and *100* Registered Horse Power,  
 and that they have been carefully inspected and examined by me at *Falmouth*  
 and found to be at this date, viz., *August 10<sup>th</sup> 1876* in good order and safe working condition.

Survey fee *5-0-0*  
 Certificate *5-5-0* Received at Shields  
 Travelling expenses *1-1-0* by *A. Young* 10/10/76

Engineer Surveyor to Lloyd's Register of Shipping.

IRON 467-0435