

# Report of Survey for Repairs of Engines and Boilers.

No. 21496  
 No. in Reg. Book. 503 Survey held at London Date, first Survey in Last Survey 5th Feb. 1877  
 on the S. J. Cowland Master  
 Tons 1241 Owners Leith, Hull, Hamb. & S. F. Port belonging to Leith Years assigned. 100 Character in Register Book. A1  
1221 Last No 21496 - Iron  
 Diameter of Cylinder 1-30" & 1-54" Engines made at Glasgow When made 1872  
 Length of Stroke 36" Pressure of Steam 6.3 lbs By whom made Messrs J. Napier & Sons  
 Registered Horse Power 130

## Particulars of Repairs and Examination

Cylinder & valve casing covers lifted and pistons and slide valves examined. Circulating and air pumps overhauled and rubber valves renewed where required. Covers of Crank shaft bearings removed and shaft examined. All the working parts of engines overhauled and adjusted. The vessel placed in the dry dock and stern tube propeller, screw shaft and all connections examined. Non return valve fitted on suction pipe of ballast donkey in order to prevent an unintentional communication between the sea & bilge. Backs of two combustion chambers in Port boiler and of one in Starboard boiler partly renewed. Forty three screwed stays renewed in back of combustion chambers of Port and twelve in back of combustion chamber of Starboard boiler. Some caulking done to furnaces and bottom of boilers.

The Machinery and boilers of the vessel are now in good order and safe working condition and in my opinion eligible for the notification Lloyd's M G in the Register Book

The Amount of Fee ... 1/2 £ 3 : 3 : 0 received by me,  
 Certificate (if required) 914178 : : 187

Travelling Expenses, if any, £

Committee's Minute 8th January, 1878.

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.