

10840 Iron

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER'S CERTIFICATE.

The following is a true Account of the Particulars of the Machinery and Boilers:—

ENGINES.—Here state description of Engines, whether Direct Acting or Geared, Inverted, Horizontal, Diagonal, or Oscillating Cylinders; No. of Cylinders, &c.

*Direct Acting. Inverted Cylinders Two in number*

ENGINES, maker of *Marshall & Bone & Co.*  
 „ age of *new*  
 „ last time taken out *never*  
 „ present condition *good*  
 Diameter of Cylinder *20" & 36" inches*  
 Length of stroke *24" inches*  
 No. per minute of Engines *85*  
 „ of Screw *85*  
 Estimated power *Nominal 56*  
 Effective power *200*  
 Diameter of Screw (or Paddle Wheels) *9 ft*  
 Pitch of Screw *14 ft*  
 No. of Blades (or Floats) *from*  
 Description of Screw (or Floats) *Common*  
 Holding down Bolts, size *1 1/2 in*  
 „ present condition *good*

Bilge Pumps, No. (*one*) and size *4 in dia*  
 Feed „ No. (*one*) and size *4 in dia*  
 Spare gear, if usual quantity on board Vessel *used*  
 Fuel, where stowed *from coal bunkers*  
 „ space between Coal Bunkers and Boilers *3 in each side*  
 „ for what quantity is space provided *60 Tons*  
 Donkey Engine and Boiler *Yes*  
 „ if fitted in Engine Room or on Deck *Engine below*  
 „ can pump be worked by hand *Boiler on deck*  
 „ size of pump (*4*) and stroke *9 in*  
 „ is hose of sufficient length to reach every part of the Vessel *Yes*  
 No. ( ) and continuation of hand pumps, if fitted in Engine Room *None*

BOILER.—Here state description of Boiler, and No.; if Tubular, or Flues; No. of Furnaces; if fitted with superheating apparatus; if Fired athwartships, or from fore, or after end of Boiler, &c.

*Tubular. 2 furnaces. Partial superheating. Fired from aft end of vessel*

BOILER, maker of *Marshall & Bone & Co.*  
 „ age of *new*  
 „ when last taken out *never*  
 „ present condition *good*  
 „ working pressure *70 lbs*  
 No. of surface Blow off Cocks to each Boiler *one*  
 SCREW SHAFT length *11' 5"* diameter *6 1/4"*  
 width *3 1/2 ft* if water-tight door on Engine Bulkhead. *Yes*

Can each Boiler be used separately *Yes*  
 What clear space between top of Boiler and woodwork *20 in*  
 What clear space between Funnel and woodwork *18 in*  
 Are Engine and Boiler Keelsons well connected fore and aft *Yes*  
 height *5 ft 9 in*

Port *South Shields* 8<sup>th</sup> day of *November* 1872

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or ~~Wood~~) Screw (or ~~Paddle~~) Steam Vessel *Rio Lima* belonging to *London* whereof *Mitchell* is Master, *180.36* Tons Register, and *56* H.P. have been carefully inspected and examined by us at *Bell & Joyner & Co* and we found the same, at this date, in good order and safe working condition.

*Marshall & Bone & Co.*  
*Sydney & Co. Engineers*  
 Lloyd's Register  
 Marine Engineers. *South Shields*