

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.

*Diagonal Oscillating Engines with four Cylinders - being one pair to each Crank pin - and dis-connecting*

ENGINES, maker of *John & James Thomson*  
 „ age of *New*  
 „ last time taken out *—*  
 „ present condition *—*  
 Diameter of Cylinder *34 ins*  
 Length of stroke *4 ft*  
 No. per minute of Engines *—*  
 „ of Screw *—*  
 Estimated power *165*  
 Effective power *—*  
 Diameter of Screw (or Paddle Wheels) *18 ft 6*  
 Pitch of Screw *—*  
 No. of Blades (or Floats) *16 each wheel*  
 Description of Screw (or Floats) *Radial*  
 Holding down Bolts, size *1"*  
 „ present condition *new*

Bilge Pumps, No. ( *2* ) and size *6 1/4" dia: x 15" Stroke*  
 Feed „ No. ( *2* ) and size *6 1/4" dia: x 15" "*  
 Spare gear, if usual quantity on board Vessel }  
 Fuel, where stowed *Alongside Engines & Boiler*  
 „ space between Coal Bunkers } *6"*  
 and Boilers }  
 „ for what quantity is space provided *85 Tons*  
 Donkey Engine and Boiler  
 „ if fitted in Engine Room or on Deck } *Engine Room*  
 „ can pump be worked by hand *Yes*  
 „ size of pump ( ) and stroke *4" dia x 8" Stroke*  
 „ is hose of sufficient length to reach every part of the Vessel } *Yes*  
 No. ( ) and continuation of hand pumps, if fitted in Engine Room }

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.

*2 Tubular Boilers fired fore & aft.  
 3 furnaces in each*

BOILER, maker of *John & James Thomson*  
 „ age of *New*  
 „ when last taken out *—*  
 „ present condition *—*  
 „ working pressure *30 (loaded to 60)*  
 No. of surface Blow off Cocks to each Boiler } *one surface*  
 } *one at bottom*

Can each Boiler be used separately *Yes*  
 What clear space between top of Boiler and woodwork }  
 What clear space between Funnel and woodwork }  
 Are Engine and Boiler Keelsons well connected fore and aft } *Yes*

SCREW SHAFT length diameter Tunnel, thickness of plating height  
 width if water-tight door on Engine Bulkhead.

Port of *Glasgow* Fifth day of *May* 1871

hereby certify, that the whole of the above Machinery and Boilers of the Iron (~~or Wood~~) *Iron* (or Paddle) Steam Vessel *Lady Carrichall* belonging to *Submarine Telegraph Co* whereof *Capt. Angus* is Master, *368* Tons Register, and *165* H.P. have been carefully inspected and examined by *us* at *Glasgow* 19th and we found the same, at this date, in good order and safe working condition.

*John & James Thomson*  
*Glasgow*  
 Marine Engineers.