

# 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.

*Inverted Direct Acting Combined High Low pressure Engines with two Cylinders*

ENGINES, maker of *Mainabole?*  
 „ age of *New*  
 „ last time taken out *New*  
 „ present condition *New*  
 Diameter of Cylinders *One 31 inches & One 14 inches*  
 Length of stroke *24 inches*  
 No. per minute of Engines *80*  
 „ of Screw *80*  
 Estimated power *55 Horses*  
 Effective power  
 Diameter of Screw (~~or Paddle Wheels~~) *9 feet*  
 Pitch of Screw *12 ft 6 inches*  
 No. of Blades (~~or Floats~~) *4*  
 Description of Screw (~~or Floats~~) *usual*  
 Holding down Bolts, size *1 inch*  
 „ present condition *New*

Bilge Pumps, No. ( *1* ) and size *4 1/2 inches*  
 Feed „ No. ( *1* ) and size *2 1/2 inches*  
 Spare gear, if usual quantity on board Vessel *Yes*  
 Fuel, where stowed *On each side of boiler & engine space*  
 „ space between Coal Bunkers and Boilers *6 inches*  
 „ for what quantity is space provided *60 Tons*  
 Donkey Engine and Boiler *Engine in Engine Room, Boiler on Deck*  
 „ if Fitted in Engine Room or on Deck *Donkey in Engine Room*  
 „ can pump be worked by hand *Yes*  
 „ size of pump ( *4* ) and stroke *7 inches*  
 „ is hose of sufficient length to reach every part of the Vessel *Yes*  
 No. ( *1* ) and condition of hand pumps, if fitted in Engine Room *Donkey 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.

*One Iron Tubular Boiler with two furnaces fitted with superheating apparatus, and fired from after end of Boiler.*

BOILER, maker of *Mainabole?*  
 „ age of *New*  
 „ when last taken out *New*  
 „ present condition *New*  
 „ working pressure *70 lbs*  
 No. of surface Blow off Cocks to *One*  
 each Boiler

Can each Boiler be used separately  
 What clear space between top of Boiler and woodwork *No woodwork*  
 What clear space between Funnel and woodwork *No woodwork*  
 Are Engine and Boiler Keelsons well connected fore and aft *Yes*

SCREW SHAFT length *60' 6"* diameter *5 1/4"* Tunnel, thickness of plating *1/4"* height *4 feet*  
 width *3' 1"* if water-tight door on Engine Bulkhead *None but stuffing gland*

Port of *Greenock*, 3<sup>rd</sup> day of *September* 1868

*We* hereby certify, that the whole of the above Machinery and Boilers of the Iron (~~or Wood~~) Screw (~~or Paddle~~) Steam Vessel *"Duro"* belonging to *Greenock* whereof *Greenock* is Master, *55* Tons Register, and *55* H.P. have been carefully inspected and examined by *us* at *Greenock* and *we* found the same, at this date, in good order and safe working condition.

*Mainabole*  
*Greenock*

Marine Engineers.

IRON 501-0069