

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 vertical, Compound surface  
Condensing with two cylinders —*

ENGINES, maker of *Hall Russell & Co*  
 „ age of *New*  
 „ last time taken out *Good*  
 „ present condition *Good*  
 Diameter of Cylinder *29 1/2 inches*  
 Length of stroke *3 feet*  
 No. per minute of Engines *68*  
 „ of Screw *68*  
 Estimated power *130 H.P.*  
 Effective power *600 H.P.*  
 Diameter of Screw (or Paddle Wheels) *4 1/2*  
 Pitch of Screw *16 1/2*  
 No. of Blades (or Floats) *Four*  
 Description of Screw (or Floats) *Bolted blades*  
 Lashing down Bolts, size *Ample*  
 „ present condition *Good*

Bilge Pumps, No. ( ) and size *Two*  
 Feed „ No. ( ) and size *Two*  
 Spare gear, if usual quantity on board Vessel *Yes*  
 Fuel, where stowed *In cross ship bunkers*  
 „ space between Coal Bunkers and Boilers *Ample*  
 „ for what quantity is space provided *130 tons*  
 Donkey Engine and Boiler *Yes*  
 „ if fitted in Engine Room or on Deck *Engine room*  
 „ can pump be worked by hand *Yes*  
 „ size of pump ( ) and stroke *Yes*  
 „ is hose of sufficient length to reach every part of the Vessel *Yes*  
 No. (2) and continuation of hand pumps, if fitted in Engine Room *Yes*

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.

*Two Cylindrical tubular boilers 3 furnaces  
in each boiler - Boilers fired from fore  
end —*

BOILER, maker of *Hall Russell & Co*  
 „ age of *New*  
 „ when last taken out *Good*  
 „ present condition *Good*  
 „ working pressure *60 lbs*  
 No. of surface Blow off Cocks to each Boiler *One*

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

Screw Shaft length *about 70 feet* diameter *9 1/2* Tunnel, thickness of plating *3/16* height *4' 6"*  
 width *3' 2"* if water-tight door on Engine Bulkhead. *Yes*

Port *Aberdeen* day of *Nov* 18 *72*

*We* hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *Samoa* belonging to *Aberdeen* whereof *John Gibson* is Master, *22* Tons Register, and *130* H.P. have been carefully inspected and examined by *us* at *Aberdeen* and *we* found the same, at this date, in good order and safe working condition.

*Hall Russell & Co*  
*Aberdeen Iron Works*  
 Marine Engineers.