

Report No 3320 S. S. "Black Watch"  
 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.

Compound, Direct Acting, Inverted Cylinders & Surface  
 Condensing Engines, No. of Cylinders, Two,

ENGINES, maker of *Mrs Richardson & Sons*

„ age of

„ last time taken out

„ present condition

Diameter of Cylinder *30" x 54"*

Length of stroke *33"*

No. per minute of Engines *65*

„ of Screw *65*

Estimated power *150*

Effective power *600*

Diameter of Screw (or Paddle Wheels) *13" 0"*

Pitch of Screw

No. of Blades (or Floats) *4*

Description of Screw (or Floats) *Ordinary*

Holding down Bolts, size *1 1/4" Diam.*

„ present condition *New*

Bilge Pumps, No. (*Two*) and size *6" Diam. x 6" Stroke*

Feed „ No. (*„*) and size *3 1/4" „ 23 1/2"*

Spare gear, if usual quantity on } *Yes*  
 board Vessel

Fuel, where stowed *Side Bunkers*

„ space between Coal Bunkers } *21"*  
 and Boilers

„ for what quantity is space provided *264 tons*

Donkey Engine and Boiler *Yes*

„ if fitted in Engine Room or } *In the engine room*  
 on Deck

„ can pump be worked by hand *no*

*Two* „ size of pump (*7 1/2*) and stroke *9"* *Double acting*

„ is hose of sufficient length to } *Yes*  
 reach every part of the Vessel

No. (*one*) and continuation of hand } *Fitted in the engine room*  
 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 force, or after end of Boiler, &c.

Cylindrical Boiler, Tubular, Four Furnaces, No  
 Superheater & Fired fore & aft

BOILER, maker of *Mrs Richardson & Sons*

„ age of

„ when last taken out

„ present condition *New*

„ working pressure *65 lbs per sq inch*

No. of surface Blow off Cocks to } *one bottom & one surface*  
 each Boiler

Can each Boiler be used separately *Single Boiler*

What clear space between top of } *3" 6"*  
 Boiler and woodwork

What clear space between Funnel } *2" 0"*  
 and woodwork

Are Engine and Boiler Keelsons } *Yes*  
 well connected fore and aft

SCREW SHAFT length *85" 6"* diameter *9" x 9 1/2"* Tunnel thickness of plating *1/4"* height *5" 0"*  
 width *3" 9"* if water-tight door on Engine Bulkhead. *Yes*

Port *Warrtepool* *19<sup>th</sup>* day of *May* 18 *74*

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood)  
 Screw (or Paddle) Steam Vessel "*Blackwatch*" belonging to *C. S. Young & Christie*  
 whereof *Geo. Christophus Catto* is Master, *905.81* Tons Register, and *150* H.P. have been  
 carefully inspected and examined by *Us* at *Warrtepool* and *We* found the  
 same, at this date, in good order and safe working condition.

*Richardson & Sons*  
*Jas Chas Smith*  
 Marine Engineers.

IRON 509-0042