

Report No 3008 S.S. "Richmond"

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 *Thos Richardson & Sons*  
 „ ~~age of~~  
 „ ~~last time taken out~~  
 „ present condition *new*  
 Diameter of Cylinders *28" & 53" inches*  
 Length of stroke *33 inches*  
 No. per minute of Engines *65*  
 „ of Screw *65*  
 Estimated power *150*  
 Effective power *500*  
 Diameter of Screw (~~or Paddle Wheels~~) *12" 6*  
 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 & 6" stroke*  
 Feed „ No. ( " ) and size *3 1/4" " & 1" 11/2"*  
 Spare gear, if usual quantity on board Vessel } *yes*  
 Fuel, where stowed *Side Bunkers*  
 „ space between Coal Bunkers and Boilers } *1' 6" & 2' 3"*  
 „ for what quantity is space provided *ab: 150 Tons*  
 Donkey Engine and Boiler *yes*  
 „ if fitted in Engine Room or on Deck } *In the Engine room*  
 „ can pump be worked by hand *No. A Separate Hand Pump*  
 „ size of pump (*7 1/2"*) and stroke *9" 3/4" Double Acting*  
 „ is hose of sufficient length to reach every part of the Vessel } *yes*  
 No. (~~one~~) and continuation of hand pumps, if fitted in Engine Room } *Fitted in Engine room 14" diam. 9" stroke*

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.

Cylindrical Boiler, Tubular, Four Furnaces, No Superheater, & Fired Fore & Aft.

BOILER, maker of *Thos Richardson & Sons*  
 „ ~~age of~~  
 „ ~~when last taken out~~  
 „ present condition *new*  
 „ working pressure *65 lbs p" = sq inch*  
 No. of surface Blow off Cocks to each Boiler } *one Surface & one bottom*  
 SCREW SHAFT length *7 1/4" 11"* diameter *8 1/4" & 8 3/4"* Tunnel, thickness of plating *1/4" + 5/16"* height *5" 0"*  
 width *3" 9"* if water-tight door on Engine Bulkhead. *yes*

Can each Boiler be used separately *Single Boiler*  
 What clear space between top of Boiler and woodwork } *2" 0"*  
 What clear space between Funnel and woodwork } *2" 3"*  
 Are Engine and Boiler Keelsons well connected fore and aft } *yes*

Port *Middlesbrough* 1<sup>st</sup> day of *November* 1871

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (~~or Wood~~) Screw (~~or Paddle~~) Steam Vessel *Richmond*, belonging to *London* whereof *John Gilbert Edwards* is Master, *656* Tons Register, and *150* H.P. have been carefully inspected and examined by *Us* at *Middlesbrough* and *We* found the same, at this date, in good order and safe working condition.

*J Richardson & Sons*  
*for Chas Smith*  
 Marine Engineers.