

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 compound engines with
two cylinders.*

ENGINES, maker of *Denny & Co*
,, age of *new*
,, last time taken out
,, present condition
Diameter of Cylinders *41 in & 70 in*
Length of stroke *42 in*
No. per minute of Engines *65*
,, of Screw
Estimated power *1300*
Effective power
Diameter of Screw (or Paddle Wheels) *16' - 6"*
Pitch of Screw *19' - 0"*
No. of Blades (or Floats) *3000*
Description of Screw (or Floats) *Cast iron bars - plain shaped*
Holding down Bolts, size *1 3/8 inch steel nuts -*
,, present condition

Bilge Pumps, No. (*2*) and size *4 1/2 diam. 21 stroke*
Feed ,, No. (*2*) and size *3 1/2*
Spare gear, if usual quantity on board Vessel *yes*
Fuel, where stowed *At sides of engine room, between engine room & boiler room & forward of boiler room -*
,, space between Coal Bunkers and Boilers *15'*
,, for what quantity is space provided *673 tons*
Donkey Engine and Boiler
,, if fitted in Engine Room or on Deck *Boiler on deck, engine in engine room -*
,, can pump be worked by hand *no*
,, size of pump (*4"*) and stroke *9"*
,, is hose of sufficient length to reach every part of the Vessel *yes*
No. (*1*) 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.

*Four cylindrical tubular boilers with two furnaces in each -
having superheating apparatus & being fired athwartships -*

BOILER, maker of *Denny & Co*
,, age of *new*
,, when last taken out
,, present condition
,, 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 *5 ft -*
What clear space between Funnel and woodwork *3' - 3"*
Are Engine and Boiler Keelsons well connected fore and aft *yes*

SCREW SHAFT length *23' - 7"* diameter *12 1/2"* Tunnel thickness of plating *3/8"* height *6 ft -*
width *5 ft -* if water-tight door on Engine Bulkhead *yes*

Port *Lumbarton* 2nd day of *May* 1874

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *Africa* belonging to *Dunlop* whereof *J. H. Atkinson* is Master, *199* Tons Register, and *250* H.P. have been carefully inspected and examined by us at *Lumbarton* and we found the same, at this date, in good order and safe working condition.

Denny & Co.
Marine Engineers.
Lloyd's Register
Foundation