

# 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.

*one pair of direct acting horizontal compound surface condensing Engines*

ENGINES, maker of *John Roach & Co*  
 „ age of *new*  
 „ last time taken out *4*  
 „ present condition *good*  
 Diameter of Cylinder *20 & 39*  
 Length of stroke *30 & 30*  
 No. per minute of Engines *Twenty*  
 „ of Screw *single*  
 Estimated power *single pair*  
 Effective power *300*  
 Diameter of Screw (or Paddle Wheels) *7 feet*  
 Pitch of Screw *15 feet*  
 No. of Blades (or Floats) *four*  
 Description of Screw (or Floats) *ordinary*  
 Holding down Bolts, size *1/4*  
 „ present condition *good*

Bilge Pumps, No. ( *2* ) and size *3"*  
 Feed „ No. ( *2* ) and size *3"*  
 Spare gear, if usual quantity on board Vessel } *yes*  
 Fuel, where stowed *aboard of Boiler*  
 „ space between Coal Bunkers and Boilers } *9 inches*  
 „ for what quantity is space provided *single screw*  
 Donkey Engine and Boiler *yes*  
 „ if fitted in Engine Room or on Deck } *Engine in Room Boiler on Deck*  
 „ can pump be worked by hand *yes*  
 „ size of pump ( *6"* ) and stroke *10 ins*  
 „ 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 } *fit in Engine Room worked from Deck*

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.

*Single tubular one with three furnaces & fired from aft no superheating apparatus*

BOILER, maker of *John Roach & Co*  
 „ age of *new*  
 „ when last taken out *—*  
 „ present condition *good*  
 „ working pressure *65 lbs*  
 No. of surface Blow off Cocks to each Boiler } *two*

Can each Boiler be used separately *on one Boiler*  
 What clear space between top of Boiler and woodwork } *3 feet*  
 What clear space between Funnel and woodwork } *3 feet*  
 Are Engine and Boiler Keelsons well connected fore and aft } *yes*

SCREW SHAFT length *40 feet* diameter *4"* Tunnel, thickness of plating *5/16* height *3 feet*  
 width *3 feet* if water-tight door on Engine Bulkhead. *yes*

Port *South Shields* *Sunday* day of *May* 18*93*

hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *Alcaga* belonging to *Alva Robinson* whereof *Alva Robinson* is Master, *295* Tons Register, and *65* H.P. have been carefully inspected and examined by *me* at *South Shields* and *Mr* found the same, at this date, in good order and safe working condition.

*John Roach & Co*  
*South Shields*  
 Marine Engineers.