

10458 Iron.

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, Surface Condensing, Inverted, Direct acting screw Engines - Cylinders 2 in number of 26" + 48" dia" respectively -

ENGINES, makers of Hawks Crawshaw & Sons
age of - New -
last time taken out
present condition
diameter of Cylinder 5 26" & 48"
length of stroke 2.6
R.P.M. of Engines 70
of Screw 70-
estimated power 90
Effective power -400-
Diameter of Screw (or Paddle Wheels) 12.0
Pitch of Screw 13.0 to 16.0
No. of Blades (or Floats) -4-
Description of Screw (or Floats) Cast iron
Holding down Bolts, size 2 1/4" dia" 8 in number
present condition - New -

Bilge Pumps, No. (2) and size 4" dia" x 15" stroke
Feed ,, No. (2) and size -20- x 20
Spare gear, if usual quantity on board Vessel
Fuel, where stowed Bunkers in Engine Space
space between Coal Bunkers and Boilers 6 inches
for what quantity is space provided about 190 tons
Donkey Engine and Boiler
if fitted in Engine Room or on Deck Donkey engine in Engine Room - Boiler in main stroke hole -
can pump be worked by hand - no -
size of pump (6 1/2) and stroke 10"
is hose of sufficient length to reach every part of the Vessel Yes -
No. () and continuation of hand 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 fore, or after end of Boiler, &c.

Boilers 2 in number of the cylindrical multitubular class, each having 2 furnaces - and fired from the fore end of Boilers - and without superheating apparatus -

BOILER, makers of Hawks Crawshaw & Sons
age of New
when last taken out
present condition
working pressure 65 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 5-3
What clear space between Funnel and woodwork 2-3
Are Engine and Boiler Keelsons well connected fore and aft Very

SCREW SHAFT length 69.1 diameter 8 1/4 - Tunnel, thickness of plating 1/16 height 4 feet
width 4 feet if water-tight door on Engine Bulkhead yes

Port Newcastle 15th day of August 1872

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel - Benton - belonging to London thereof Capt. Levatt is Master, 489.03 Tons Register, and 90 - H.P. have been carefully inspected and examined by us at Gateshead and we found the same, at this date, in good order and safe working condition.

Hawks Crawshaw & Sons per John Hopkins Gateshead Marine Engineers