

J. S. Grasman

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.

ENGINES, maker of Christie Gutch & Co
„ age of New
„ last time taken out —
„ present condition New
Diameter of Cylinder AP 14" LP 32"
Length of stroke 22 inches
No. per minute of Engines about 100
„ of Screw —
Estimated power 43 H.P.
Effective power —
Diameter of Screw (or Paddle Wheels) 8' 3"
Pitch of Screw 11 feet
No. of Blades (or Floats) 3
Description of Screw (or Floats) Right handed
Holding down Bolts, size 1 1/2" dia
„ present condition New
Bilge Pumps, No. (1) and size 3 1/4" dia 12 strokes
Feed „ No. (1) and size 3 1/4" 12"
Spare gear, if usual quantity on board Vessel Yes
Fuel, where stowed in Bunkers
„ space between Coal Bunkers and Boilers 7 inches
„ for what quantity is space provided —
Donkey Engine and Boiler Yes
„ if fitted in Engine Room or on Deck Engine Room
„ can pump be worked by hand Yes
„ size of pump () and stroke —
„ 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.

Cylindrical. Multitubular. 2 Furnaces
from fore to aft

BOILER, maker of Christie Gutch & Co
„ age of New
„ when last taken out —
„ present condition New
„ working pressure 65 lbs. per sq. in.
No. of surface Blow off Cocks to each Boiler One
Can each Boiler be used separately —
What clear space between top of Boiler and woodwork 5 feet
What clear space between Funnel and woodwork 2 feet
Are Engine and Boiler Keelsons well connected fore and aft Yes
SCREW SHAFT length 46 feet diameter 6" Tunnel thickness of plating — height —
width — if water-tight door on Engine Bulkhead. —

Port Newcastle 27th day of May 18th 19th 44.

we hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel Grasman belonging to Newcastle whereof Conolly is Master, 195.00 Tons Register, and 43 H.P. have been carefully inspected and examined by us at Newcastle and we found the same, at this date, in good order and safe working condition.

Christie Gutch & Co
North Shields
Marine Engineers.

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