

Title (en)

Reciprocating piston combustion engine and method for operating same

Title (de)

Hubkolben-Brennkraftmaschine und Verfahren zum Betrieb einer Hubkolben-Brennkraftmaschine

Title (fr)

Moteur à combustion interne à piston éleveur et procédé de fonctionnement d'un moteur à combustion interne à piston éleveur

Publication

**EP 2876275 B1 20171011 (DE)**

Application

**EP 14002466 A 20140716**

Priority

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Abstract (en)

[origin: CN104653276A] The present invention relates to a reciprocating piston combustion engine and a method for operating the same. The reciprocating piston combustion engine comprises at least one air inlet valve (5) arranged at a cylinder cover (3) and an air outlet valve (6) arranged at the cylinder cover, wherein an electromagnetic valve is arranged at the cylinder cover (3) for leading air into a combustion chamber (13) and/or leading the air out of the combustion chamber (13). The method for operating the reciprocating piston combustion engine is characterized by comprising the following steps: leading compressed air from a compressed air storage (1) into the combustion chamber (13) through the electromagnetic valve (4) except for pressurized air leaded into the combustion chamber (13) through the at least one air inlet valve (5); and/or taking out the compressed air from the combustion chamber (13) through the electromagnetic valve and conveying the compressed air to the compressed air storage (1).

IPC 8 full level

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Citation (examination)

- US 2005182553 A1 20050818 - MILLER KENNETH C [US], et al
- DE 4411934 C1 19950302 - DAIMLER BENZ AG [DE]

Cited by

DE102021105780A1; DE102020131507A1; US10344683B2; WO2016060605A1

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