

Title (en)
SPARK-IGNITED RECIPROCATING PISTON INTERNAL COMBUSTION ENGINE COMPRISING A PRE-CHAMBER IGNITION SYSTEM

Title (de)
FREMD GEZÜNDETE HUBKOLBEN-BRENNKRAFTMASCHINE MIT EINEM VORKAMMERZÜNDSYSTEM

Title (fr)
MOTEUR À COMBUSTION INTERNE À PISTON ALTERNATIF À ALLUMAGE PAR ÉTINCELLE COMPRENANT UN SYSTÈME D'ALLUMAGE DE CHAMBRE DE PRÉ-COMBUSTION

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Application
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Abstract (en)
[origin: WO2021175536A1] The invention relates to a spark-ignited reciprocating piston internal combustion engine comprising a pre-chamber ignition system with a housing, which can be built into a cylinder head of the reciprocating piston internal combustion engine and in which an ignition device is arranged, which projects into a hollow space in the housing, wherein the hollow space is covered by a cover relative to a combustion chamber of the reciprocating piston internal combustion engine, wherein the cover has at least one first opening, which connects the hollow space and the combustion chamber to one another in a gas-guiding manner, wherein the housing has a volume and the at least one opening has a flow cross-section and the ratio of the volume to the flow cross-section is greater than 100 and less than 300, in particular greater than 150 and less than 220. Due to the configuration of the pre-chamber ignition system according to the invention, the ignition of a fuel/air mixture in the pre-chamber ignition system is significantly improved with a low load and/or rotational speed of the internal combustion engine and the exhaust gas temperatures are simultaneously lowered.

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