

Title (en)  
INTERNAL COMBUSTION ENGINE

Title (de)  
BRENNKRAFTMASCHINE

Title (fr)  
MOTEUR A COMBUSTION INTERNE

Publication  
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Application  
**EP 09763916 A 20091124**

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Abstract (en)  
[origin: WO2010063613A1] The invention specifies an internal combustion engine comprising at least one combustion chamber (15) with an inlet (18) which can be closed off by an inlet valve (17) and upstream of which is connected an air intake duct (21), comprising a spark plug (35) which is inserted into the combustion chamber (15), and comprising a fuel injection device (27) which, per combustion chamber (15), has one high-pressure injection valve (28) which injects directly into the combustion chamber (15) and one low-pressure injection valve (29) which injects fuel into the air intake duct (21). To realize a jet-controlled stratified-charge mode, which is extended toward low engine speeds, for the purpose of lowering fuel consumption and achieving stable idle running, the high-pressure injection valve (28) is designed as a multi-hole high-pressure injection valve (28) which discharges a plurality of fuel jets and is arranged such that it injects centrally into the combustion chamber (15) and, in this way, at least one fuel jet is directed toward the spark plug (35).

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