

Title (en)
INTERNAL COMBUSTION ENGINE

Title (de)
BRENNKRAFTMASCHINE

Title (fr)
MOTEUR À COMBUSTION INTERNE

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Abstract (en)
The present invention is related to internal combustion engines (100) and to a method for operating an internal combustion engine (100). The internal combustion engine, preferably a large two-stroke internal combustion engine, has at least one cylinder (1), preferably having an inner diameter of at least 200mm, in particular a dual-fuel engine, and has a reciprocating piston. The internal combustion engine (100) comprises at least two main injection nozzles (11, 12, 13), preferably three main injection nozzles (11, 12, 13), for injecting of a fuel unwilling to ignite. The main injection nozzles (11, 12, 13) preferably are arranged equidistantly in circumferential direction. The internal combustion engine (100) comprises at least one pilot injection nozzle (21, 22, 23) for injecting a fuel willing to ignite, preferably the same number of pilot injection nozzles as for the main injection nozzles (11, 12, 13), wherein each pilot injection nozzle is arranged near a corresponding main injection nozzle (11, 12, 13). The internal combustion engine (100) further comprises a control unit (10) suitable for controlling the main injection nozzles (11, 12, 13) and the pilot injection nozzles (21, 22, 23) during a power cycle such that fuel willing to ignite is injected into the combustion chamber (3) via the pilot injection nozzles (21, 22, 23) jointly with a fuel unwilling to ignite via a corresponding main injection nozzle (11, 12, 13), and such that at least one main injection nozzle (11, 12, 13) ejects fuel unwilling to ignite without fuel willing to ignite being introduced into the combustion chamber via a corresponding pilot injection nozzle (21, 22, 23).

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Citation (applicant)
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