

Title (en)

Multiple capillary fuel injector for an internal combustion engine

Title (de)

Mehrfachkapillare Kraftstoffeinspritzdüse für einen Verbrennungsmotor

Title (fr)

Injecteur de carburant à capillaires multiples pour moteur à combustion interne

Publication

EP 1978239 B1 20101215 (EN)

Application

EP 08009560 A 20041029

Priority

- EP 04817490 A 20041029
- US 51592403 P 20031030

Abstract (en)

[origin: WO2005042964A1] A fuel injector for vaporizing a liquid fuel for use in an internal combustion engine. The fuel injector includes a plurality of capillary flow passages, each of the plurality of capillary flow passages having an inlet end and an outlet end; a heat source arranged along each of the plurality of capillary flow passages, the heat source operable to heat the liquid fuel in each of the plurality of capillary flow passages to a level sufficient to change at least a portion thereof from the liquid state to a vapor state and deliver a stream of substantially vaporized fuel from each outlet end of the plurality of capillary flow passages; and a valve for metering substantially vaporized fuel to the internal combustion engine, the valve located downstream of each outlet end of the plurality of capillary flow passages. The fuel injector is effective in reducing cold-start and warm-up emissions of an internal combustion engine.

IPC 8 full level

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CPC (source: EP)

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