

Title (en)
FUEL INJECTOR FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
KRAFTSTOFFEINSPRITZVENTIL FÜR EINE BRENNKRAFTMASCHINE

Title (fr)
INJECTEUR DE MOTEUR A COMBUSTION INTERNE

Publication
EP 1488098 B1 20070704 (EN)

Application
EP 03719466 A 20030324

Priority

- US 0309128 W 20030324
- US 36712102 P 20020322

Abstract (en)
[origin: WO03083281A1] A fuel injector for vaporizing a liquid fuel for use in an internal combustion engine. The fuel injector includes at least one capillary flow passage (12) , the at least one capillary flow passage (12) having an inlet end (14) and an outlet end (16), the capillary flow passage comprises a channel formed within a monolithic body produced from a material selected from the group consisting of ceramics, polymers, metals and composites thereof or a multi-layer ceramic body, a fluid control valve (18) for placing the inlet end of the at least one capillary flow passage (12) in fluid communication with the liquid fuel source and introducing the liquid fuel in a substantially liquid state, a heat source (20) arranged along the at least one capillary flow passage, the heat source (20) operable to heat the liquid fuel in the at least one capillary flow passage (12) 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 the outlet end of the at least one capillary flow passage.

IPC 8 full level
F02M 31/125 (2006.01); **F02M 57/00** (2006.01); **F02B 77/04** (2006.01); **F02D 41/00** (2006.01); **F02M 21/06** (2006.01); **F02M 31/18** (2006.01); **F02M 45/08** (2006.01); **F02M 47/04** (2006.01); **F02M 51/06** (2006.01); **F02M 51/08** (2006.01); **F02M 53/06** (2006.01); **F02M 61/08** (2006.01); **F02M 61/16** (2006.01); **F02M 61/18** (2006.01); **F02M 65/00** (2006.01); **F02M 69/00** (2006.01)

CPC (source: EP KR)
F02B 77/04 (2013.01 - KR); **F02D 41/003** (2013.01 - EP); **F02M 45/086** (2013.01 - EP); **F02M 51/0671** (2013.01 - EP); **F02M 53/06** (2013.01 - EP KR); **F02M 57/00** (2013.01 - EP KR); **F02M 61/08** (2013.01 - EP); **F02M 61/166** (2013.01 - EP); **F02M 61/18** (2013.01 - EP KR); **F02M 65/008** (2013.01 - EP)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 03083281 A1 20031009; AT E366361 T1 20070715; AU 2003223348 A1 20031013; BR 0308625 A 20070109; BR 0308625 B1 20120306; CA 2480083 A1 20031009; CA 2480083 C 20120124; CN 100379978 C 20080409; CN 1653261 A 20050810; DE 60314737 D1 20070816; DE 60314737 T2 20071018; EP 1488098 A1 20041222; EP 1488098 B1 20070704; JP 2005520989 A 20050714; JP 4323325 B2 20090902; KR 100764529 B1 20071009; KR 20050002880 A 20050110; MX PA04009181 A 20050620

DOCDB simple family (application)
US 0309128 W 20030324; AT 03719466 T 20030324; AU 2003223348 A 20030324; BR 0308625 A 20030324; CA 2480083 A 20030324; CN 03810709 A 20030324; DE 60314737 T 20030324; EP 03719466 A 20030324; JP 2003580697 A 20030324; KR 20047014919 A 20030324; MX PA04009181 A 20030324