Title (en)
FUEL INJECTION VALVE WITH INTEGRATED SPARK PLUG

Title (de)
BRENNSTOFFEINSPRITZVENTIL MIT INTEGRIERTER ZÜNDKERZE

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT A BOUGIE INTEGREE

Publication
EP 1032762 A1 20000906 (DE)

Application
EP 99924738 A 19990401

Priority
- DE 9900984 W 19990401
- DE 19828849 A 19980627

Abstract (en)
[origin: DE19828849A1] A fuel injection valve has an integrated spark plug (1) for direct injection of fuel into a combustion chamber of an IC engine and to ignite the fuel injected into the combustion chamber. There is a valve body (7) which forms a sealing seat together with a valve closing body (10) which at least one outlet opening (12) adjoins at an end face of the valve body facing the combustion chamber. There is a housing body (2) insulated from the valve body. At least one ignition electrode (70) is provided on the housing body in order to generate a spark discharge between the valve body and the ignition electrode. The ignition electrode and the valve body are shaped so that the spark discharge takes place between the end face of the valve body facing the combustion chamber and the ignition electrode. The end face of the valve body facing the combustion chamber and/or the ignition electrode has/have an edge (74-92) near the outlet opening in order to fix the position of the spark discharge at the end face of the valve body in reproducible fashion relative to the position of the outlet opening.

IPC 1-7
F02M 57/06

IPC 8 full level
F02M 51/06 (2006.01); **F02M 57/06** (2006.01); **F02M 61/16** (2006.01); **F02M 61/18** (2006.01)

CPC (source: EP KR US)
F02M 51/0671 (2013.01 - EP US); **F02M 57/06** (2013.01 - EP KR US); F02M 61/163 (2013.01 - EP US)

Citation (search report)
See references of WO 0000738A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 19828849 A1 19991230; DE 59909032 D1 20040506; DE 59913266 D1 20060518; EP 1032762 A1 20000906; EP 1032762 B1 20040331; EP 1431571 A2 20040623; EP 1431571 A3 20040804; EP 1431571 B1 20060329; JP 2002519571 A 20020702; KR 20010022302 A 20010315; US 2003111042 A1 20030619; US 6536405 B1 20030325; US 6748918 B2 20040615; WO 0000738 A1 20000106

DOCDB simple family (application)
DE 19828849 A 19980627; DE 59909032 T 19990401; DE 59913266 T 19990401; DE 9900984 W 19990401; EP 04000412 A 19990401; EP 99924738 A 19990401; JP 2000557074 A 19990401; KR 20007000881 A 20000127; US 35560403 A 20030129; US 48640200 A 20000519