

Title (en)
COMBINED FUEL INJECTION VALVE/IGNITION PLUG

Title (de)
BRENNSTOFFEINSPRITZVENTIL-ZÜNDKERZE-KOMBINATION

Title (fr)
COMBINAISON SOUPAPE D'INJECTION DE CARBURANT-BOUGIE D'ALLUMAGE

Publication
EP 1456529 A1 20040915 (DE)

Application
EP 02779115 A 20020920

Priority
• DE 0203551 W 20020920
• DE 10159909 A 20011206

Abstract (en)
[origin: WO03050409A1] The invention relates to a combined fuel injection valve/ignition plug (1) which comprises a fuel injection valve (2) for the direct injection of fuel into a combustion chamber of an internal combustion engine, and an ignition plug (3) which has an ignition plug insulator (19), a first electrode (20) and a second electrode (21) for igniting the fuel injected into the combustion chamber. The fuel injection valve (2) includes an actuator (4), interacting with an actuator element (5) that is functionally non-positively linked with a valve needle (6), said valve needle (6) or a valve closing element (7) linked therewith interacting with a valve seat surface (8) to give a sealing seat. The valve needle (6) of the fuel injection valve (2) and the ignition plug insulator (19) of the ignition plug (3) are disposed biaxially off-set in a common housing (9).

IPC 1-7
F02M 57/06; **H01T 13/08**

IPC 8 full level
F02M 51/06 (2006.01); **F02M 57/06** (2006.01); **F02M 61/14** (2006.01); **F02P 13/00** (2006.01); **H01T 13/40** (2006.01)

CPC (source: EP US)
F02M 57/06 (2013.01 - EP US); **F02M 61/14** (2013.01 - EP US); **F02M 51/0671** (2013.01 - EP US); **F02M 2200/858** (2013.01 - EP US)

Citation (search report)
See references of WO 03050409A1

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

DOCDB simple family (publication)
WO 03050409 A1 20030619; DE 10159909 A1 20030618; EP 1456529 A1 20040915; JP 2005511966 A 20050428;
US 2004112328 A1 20040617; US 6871630 B2 20050329

DOCDB simple family (application)
DE 0203551 W 20020920; DE 10159909 A 20011206; EP 02779115 A 20020920; JP 2003551420 A 20020920; US 46722103 A 20031216