

Title (en)  
Fuel injection nozzle

Title (de)  
Brennstoffeinspritzdüse

Title (fr)  
Buse d'injection de combustible

Publication  
**EP 0961024 B1 20100113 (DE)**

Application  
**EP 98810499 A 19980529**

Priority  
EP 98810499 A 19980529

Abstract (en)  
[origin: EP0961024A1] The fuel injector (1) for a diesel motor, has a jet body (2) and a bonded jet head (3) and at least one jet opening (31) for the fuel to be delivered to a combustion zone. An initial pressure zone (6) is within the jet body (2) with a fuel feed line (12) opening into it. At least one connecting line (13) links the pressure zone (6) and jet opening (31) to carry fuel from the pressure zone (6) to the jet opening (31). A jet needle (7) within the jet body (2) works with a valve seat (8) to open and close the link between the pressure zone (6) and the connecting line (13). A second pressure zone (9) is between the first pressure zone (6) and the jet opening (31). A second needle (10) works with a second valve seat (11) to open and close the connection between the second pressure zone (9) and the jet opening (31).

IPC 8 full level  
**F02M 47/00** (2006.01); **F02M 61/04** (2006.01); **F02M 53/04** (2006.01); **F02M 61/10** (2006.01); **F02M 61/16** (2006.01); **F02M 61/18** (2006.01); **F02B 3/06** (2006.01)

CPC (source: EP KR)  
**F02M 53/043** (2013.01 - EP); **F02M 61/04** (2013.01 - EP); **F02M 61/166** (2013.01 - EP); **F02M 61/18** (2013.01 - EP KR); **F02B 3/06** (2013.01 - EP); **F02F 2007/0097** (2013.01 - EP)

Citation (examination)  
• DE 1076996 B 19600303 - BOSCH GMBH ROBERT  
• DE 761853 C 19510823 - BOSCH GMBH ROBERT

Cited by  
KR100609423B1; EP1201915A3; DE102009054441A1; CN106545444A; US6811101B2; WO2011063929A1; EP2397683A1; US10400724B2; EP2397682A1; WO2011157375A1; US6439193B2; EP2397684A1; WO2011157374A1

Designated contracting state (EPC)  
DE DK IT

DOCDB simple family (publication)  
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**EP 98810499 A 19980529**; DE 59814428 T 19980529; JP 7525299 A 19990319; KR 19990019350 A 19990528; PL 33339099 A 19990526