

Title (en)  
FUEL INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 1434942 B1 20080227 (DE)**

Application  
**EP 02764554 A 20020823**

Priority  
• DE 0203091 W 20020823  
• DE 10148824 A 20011004

Abstract (en)  
[origin: US2004075000A1] A fuel injector (1) includes a magnetic coil (10), which cooperates with an armature (20) which, together with a valve needle (3) acted upon by a restoring spring (23), forms an axially movable valve part. A valve-closure member (4) which forms a sealing seat together with a valve-seat member (5), is provided at the valve needle (3). Furthermore, the fuel injector (1) includes an inner pole (13) and an outer pole (9) which form a magnetic circuit together with the magnetic coil (10), and a central fuel supply (16). A sleeve (21) is situated in the central fuel supply (16) of the fuel injector (1) in such a way that a flow route of the fuel through the fuel injector (1) is formed such with respect to length and diameter that the frequency of natural oscillations which are excited by the fuel flowing through the fuel injector (1), is adjusted to the closing intervals of the fuel injector (1).

IPC 8 full level  
**F02M 51/08** (2006.01); **F02M 69/46** (2006.01); **F02M 51/06** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)  
**F02M 51/0671** (2013.01 - EP US); **F02M 69/465** (2013.01 - EP US); **F02M 2200/31** (2013.01 - EP US)

Citation (examination)  
• DE 19919665 A1 20001102 - VOLKSWAGEN AG [DE]  
• EP 0251152 A1 19880107 - MAX PLANCK GESELLSCHAFT [DE]

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