

Title (en)
Injection valve

Title (de)
Einspritzventil

Title (fr)
Soupape d'injection

Publication
EP 2226493 A1 20100908 (EN)

Application
EP 09003115 A 20090304

Priority
EP 09003115 A 20090304

Abstract (en)
Injection valve comprising a central longitudinal axis (L) and a valve needle (10). The valve needle (10) comprises a valve needle body (20) being actuated to move axially. The valve needle (10) further comprises a sealing element (50) preventing a fluid injection in a closing position and permitting the fluid injection in further positions. Furthermore the valve needle (10) comprises at least one damping element (60) being arranged to couple the valve needle body (20) to the sealing element (50). The damping element (60) is operable to absorb at least partially a kinetic energy of the valve needle body (20), if the sealing element (50) reaches its closing position.

IPC 8 full level
F02M 61/20 (2006.01)

CPC (source: EP)
F02M 61/20 (2013.01); **F02M 61/205** (2013.01); **F02M 2200/306** (2013.01)

Citation (applicant)
US 6523759 B1 20030225 - D ARRIGO ANGELO [US]

Citation (search report)
• [X] US 2957631 A 19601025 - ARMSTRONG JAMES F
• [X] GB 293171 A 19280705 - TORKILD VALDEMAR HEMMINGSEN
• [X] DE 10325734 A1 20041223 - BOSCH GMBH ROBERT [DE]
• [A] WO 9721919 A1 19970619 - SIEMENS AUTOMOTIVE CORP LP [US]

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA RS

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