

Title (en)
Fuel injection valve

Title (de)
Brennstoffeinspritzventil

Title (fr)
Injecteur de carburant

Publication
EP 1262655 A3 20040121 (DE)

Application
EP 02011017 A 20020517

Priority
DE 10124747 A 20010521

Abstract (en)
[origin: DE10124747A1] Fuel injection valve comprises a valve needle (3) and an armature (20) engaging with the valve needle and having an armature buffer surface (34) facing away from the valve seat as a first buffer surface. A counter-buffer surface (35) serves as a second buffer surface interacting with the armature buffer surface. The armature buffer surface and/or the counter-buffer surface have in a recess (36) an elastic damping element (37) protruding over the armature buffer surface/ counter-buffer surface. Preferred Features: The damping element is arranged in the counter-buffer surface. The recess is a circular groove arranged concentrically to the valve needle. The damping element is a rectangular ring or an O-ring made of an elastomer, or a spring element.

IPC 1-7
F02M 51/06

IPC 8 full level
F02M 51/06 (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)
F02M 51/0671 (2013.01); **F02M 2200/09** (2013.01); **F02M 2200/306** (2013.01); **F02M 2200/9015** (2013.01)

Citation (search report)
• [DA] DE 19816315 A1 19991014 - BOSCH GMBH ROBERT [DE]
• [A] EP 1054152 A2 20001122 - HYDRAFORCE INC [US]
• [A] DE 19948238 A1 20010419 - BOSCH GMBH ROBERT [DE]
• [PA] DE 10017030 A1 20011011 - RAUSCH & PAUSCH [DE]

Cited by
CN106930881A; CN109654283A; EP2860386A1; CN105593508A; EP3346122A1; US10202953B2; US9771908B2; US7721713B2; WO2015052281A1; WO2012084328A1

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