

Title (en)
MAGNET ARMATURE

Publication
EP 0383063 B1 19920422 (DE)

Application
EP 90101367 A 19900124

Priority
DE 3904447 A 19890215

Abstract (en)
[origin: US4946132A] Known magnet armatures for electromagnetically activated valves are machined out of solid material and are relatively high in weight, so their switching times are not short enough. The magnet armature of this invention is intended to be simple to produce and intrinsically low in weight. To enable providing the magnet armature with a wall of slight thickness, the circumference of the magnet armature, at least in a region in which it surrounds the valve body, is profiled in a undulating pattern, such that so-called wave troughs contacting the valve body connecting tube and crests protruding radially beyond them are formed. The troughs are joined to the valve body, and between the wave crests. The magnet armature may be produced by sintering, by severing it from a profiled tube, or by deformation of a tube. The magnet armature is used in a fuel injection valve for fuel injection systems in internal combustion engines.

IPC 1-7
F02M 51/06; **H01F 3/10**; **H01F 7/16**

IPC 8 full level
F02M 51/06 (2006.01); **F02M 51/08** (2006.01); **F16K 31/06** (2006.01); **H01F 3/10** (2006.01); **H01F 7/16** (2006.01)

CPC (source: EP KR US)
F02M 51/06 (2013.01 - KR); **F02M 51/0664** (2013.01 - EP US); **F02M 51/0682** (2013.01 - EP US); **H01F 3/10** (2013.01 - EP US); **H01F 7/1607** (2013.01 - EP US); **Y10S 239/90** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0383063 A1 19900822; **EP 0383063 B1 19920422**; BR 9000661 A 19910115; DE 3904447 A1 19900816; DE 59000095 D1 19920527; JP 3112080 B2 20001127; JP H02240476 A 19900925; KR 0130464 B1 19980409; KR 900013196 A 19900905; KR 900013197 A 19900905; KR 970009536 B1 19970614; US 4946132 A 19900807

DOCDB simple family (application)
EP 90101367 A 19900124; BR 9000661 A 19900214; DE 3904447 A 19890215; DE 59000095 T 19900124; JP 2861090 A 19900209; KR 900001386 A 19900206; KR 900001731 A 19900213; US 44281489 A 19891129