

Title (en)
Electromagnetic ball valve injector.

Title (de)
Elektromagnetisches Kugeleinspritzventil.

Title (fr)
Injecteur à commande électromagnétique à bille.

Publication
EP 0051009 A1 19820505 (FR)

Application
EP 81401580 A 19811013

Priority
FR 8023105 A 19801029

Abstract (en)
[origin: US4427156A] An electromagnetically actuated injector, for the injection of fluid in internal combustion engines in particular, comprises a casing, a core located within the casing, an actuating coil surrounding the core, a fluid inlet passage, a chamber between the core and a cover. The injector contains a ball which cooperates with a seat to close the injection passage formed in the cover, said ball being attracted by the actuating coil against an elastic system mounted in front of the core and which urges the ball against its seat. The injector includes a disk interposed between the core and the ball, the disk surface facing the ball being coated with a thin layer of nonmagnetic material, a seat with a circular working surface, a funnel-shaped nozzle for automatic fluid-flow regulation, and an injection tip provided with spiral inclines to create a cone-shaped spray at the outlet of the injection nozzle. Application is to fuel injection in the internal combustion engines of automotive vehicles.

Abstract (fr)
Injecteur de carburant comprenant une bille (12) d'obturation qui est sollicitée par une bobine d'excitation (15) entourant un noyau (2) à l'encontre d'un ressort (13), qui tend à repousser la bille (12) contre son siège (14). Une pastille (27) en matériau magnétique de grande dureté interposée entre le noyau (2) et la bille (12) est sollicitée contre le noyau (2) par le ressort (13). La face (28) de cette pastille (27), orientée vers la bille (12), est recouverte d'une couche mince de matériau non magnétique.

IPC 1-7
F02M 51/08

IPC 8 full level
F02M 51/06 (2006.01); **F02M 51/08** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP US)
F02M 51/0632 (2013.01 - EP US); **F02M 51/08** (2019.01 - EP US); **F02M 61/162** (2013.01 - EP US); **F02M 61/166** (2013.01 - EP US); **Y10S 239/90** (2013.01 - EP US)

Citation (search report)

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DOCDB simple family (application)
EP 81401580 A 19811013; AT 81401580 T 19811013; DE 3168069 T 19811013; FR 8023105 A 19801029; JP 17087181 A 19811027; US 31590681 A 19811028