

Title (en)

DIAPHRAGM-ACTUATED PNEUMATIC CORRECTING DEVICE FOR A FUEL INJECTION PUMP OF AN INTERNAL-COMBUSTION ENGINE

Publication

**EP 0198166 B1 19890517 (DE)**

Application

**EP 86101703 A 19860211**

Priority

- DE 3508519 A 19850309
- DE 3543334 A 19851207

Abstract (en)

[origin: US4727839A] A pneumatic diaphragm control element for a fuel injection apparatus for internal combustion engines, in particular for supercharged diesel engines, has a thrust rod that is axially displaceable between two end stop counter to the force of a restoring spring, which thrust rod acts upon a control member of the fuel injection apparatus and is connected to a pressure-actuated diaphragm. One end stop determines the position assumed by the thrust rod when there is no pressure and is embodied as a stop screw for the thrust rod. The second end stop defines the position assumed by the thrust rod with maximal pressure being exerted on the diaphragm, and to this end cooperates with a counterpart stop that is adjustably coupled with the thrust rod. For better adaptation of the regulating characteristic, the counterpart stop is embodied as a pre-stressed spring assembly with two stop positions, such that when the first stop position is attained, after the spring pre-stressing is overcome, a further displacement travel (S2) of the thrust rod until the second stop position is attained is available.

IPC 1-7

**F02D 1/06**; **F02D 1/14**; **F02D 23/02**

IPC 8 full level

**F02D 1/02** (2006.01); **F02D 1/06** (2006.01); **F02D 1/14** (2006.01); **F02D 23/02** (2006.01); **F02B 3/06** (2006.01)

CPC (source: EP US)

**F02D 1/065** (2013.01 - EP US); **F02B 3/06** (2013.01 - EP US)

Designated contracting state (EPC)

AT DE FR GB IT

DOCDB simple family (publication)

**US 4727839 A 19880301**; AT E43153 T1 19890615; BR 8601000 A 19861118; DE 3543334 A1 19860911; DE 3663379 D1 19890622; EP 0198166 A2 19861022; EP 0198166 A3 19861029; EP 0198166 B1 19890517; ES 552801 A0 19870601; ES 8706229 A1 19870601; JP 2557839 B2 19961127; JP S61207835 A 19860916

DOCDB simple family (application)

**US 93807086 A 19860310**; AT 86101703 T 19860211; BR 8601000 A 19860307; DE 3543334 A 19851207; DE 3663379 T 19860211; EP 86101703 A 19860211; ES 552801 A 19860307; JP 5073586 A 19860310