

Title (en)

Injection valve control system for internal combustion engines

Title (de)

Steueranordnung für ein Einspritzventil für Verbrennungskraftmaschinen

Title (fr)

Système de commande d'une soupape d'injection d'un moteur à combustion interne

Publication

EP 0615064 B1 19980826 (DE)

Application

EP 94102943 A 19940226

Priority

CH 69693 A 19930308

Abstract (en)

[origin: EP0615064A1] The control system for an injection valve of internal combustion engines for controlling the opening and closing movement of the nozzle needle (26) has an electromagnetically actuated directional control valve (37). This directional control valve (37) has a movable closure element (40) which is connected to the armature (104) of an electromagnet (38) and is guided in an insertion component (44) which is fixed to the housing. The closure element (40) is in one of two respective switched positions in which a valve space (72) is either connected via an inlet valve to a high-pressure fuel port (10) or via an outlet valve to a fuel return line (102). When the inlet valve is open, the fuel pressure in the valve space (72) acts via a control space (84) on the rear end of the nozzle needle (26) so that the latter is pressed against the seat of the nozzle needle and shuts off the injection holes. Since the directional control valve (37) only has one sliding surface (45) for guiding the closure element (40) the leakage losses of the injection valve are small. <IMAGE>

IPC 1-7

F02M 47/02

IPC 8 full level

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CPC (source: EP)

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Cited by

EP0995900A1; EP0908617A1; FR2869651A1; CN112943499A; US6196193B1; DE4434892A1; DE19907544A1; DE19907544C2; FR2750172A1; GB2316447A; GB2316447B; GB2286427A; GB2286427B; US6168087B1; US6250563B1; US7284712B2; US6412706B1; WO9961779A1; WO9902849A1; WO0188365A1; WO9840623A1

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