

Title (en)
ELECTROMAGNETIC VALVE FOR CONTROLLING AN INJECTION VALVE OF AN INTERNAL COMBUSTION ENGINE

Title (de)
MAGNETVENTIL ZUR STEUERUNG EINES EINSPRITZVENTILS EINER BRENNKRAFTMASCHINE

Title (fr)
ELECTROVANNE DESTINEE A LA COMMANDE D'UNE SOUPEPE D'INJECTION D'UN MOTEUR A COMBUSTION INTERNE

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Application
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Abstract (en)
[origin: WO0242632A2] The invention relates to an electromagnetic valve for controlling an injection valve of an internal combustion engine, comprising an electromagnet (29), a moving armature with an armature plate (28) and an armature pin (27); and a control valve member (25) which is moved with the armature and which interacts with a valve seat (24), for opening and closing a fuel drainage channel (17) of a control pressure chamber (14) of the injection valve (1). The armature plate (28) is mounted in such a way that under the influence of its inert mass, the armature plate can slide on the armature pin in the closing direction of the control valve member (25), in the opposite direction to the clamping force of a return spring (35) which acts on the armature plate. The inventive electromagnetic valve also comprises a hydraulic damping device with which the post-oscillation of the armature plate (28) after its dynamic displacement on the armature pin (27) can be damped. In order to simplify the assembly and reduce a disadvantageous post-oscillation process of the armature plate, the invention provides that the return spring (35) is supported on a support part (50) which is situated on the armature pin (27) and which is moved with said armature pin, by the end (62) of the return spring facing away from the armature plate (28). Said support part (50) also forms part (57) of the damping device.

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