

Title (en)

PIEZO INJECTOR WITH HYDRAULICALLY COUPLED NOZZLE NEEDLE MOVEMENT

Title (de)

PIEZOINJEKTOR MIT HYDRAULISCH GEKOPPELTER DÜSENNADELBEWEGUNG

Title (fr)

INJECTEUR PIÉZO-ÉLECTRIQUE DONT LE MOUVEMENT DE L'AIGUILLE D'INJECTION EST COUPLÉ HYDRAULIQUEMENT

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Application

EP 13736850 A 20130704

Priority

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Abstract (en)

[origin: WO2014012795A1] The invention relates to a piezo injector (100) with an actuator chamber (131) in which a piezo actuator (130) is arranged. The piezo injector (100) further comprises a valve plunger bore (151) in which a valve plunger (150) is arranged, said valve plunger (150) having a first end face (152) facing the piezo actuator (130). A valve plunger bore (151) portion which is delimited by the first end face (152) forms a first control chamber (153), and a valve plunger bore (151) portion opposite the first control chamber (153) forms a spring chamber (154). The valve plunger (150) is arranged between the first control chamber (153) and the spring chamber (154). Additionally, a nozzle needle (170) is provided comprising a second end face (172), said nozzle needle (170) guiding a nozzle needle sleeve (171). The nozzle needle sleeve (171) and the second end face (172) delimit a second control chamber (173). A connection bore (160) is provided between the first control chamber (153) and the second control chamber (173). Furthermore, a leakage pin (140) is provided which is arranged between the piezo actuator (130) and the first end face (152) of the valve plunger (150) in a leakage pin bore (141). Said leakage pin bore (141) is formed in an intermediate plate (112) which adjoins a control plate (114) on the side facing the piezo actuator (130), the valve plunger bore (151) being formed in said control plate (114).

IPC 8 full level

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Citation (search report)

See references of WO 2014012795A1

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