

Title (en)
DEVICE AND METHOD FOR REGULATING THE CONTROL VALVE OF A HIGH-PRESSURE PUMP

Title (de)
VORRICHTUNG UND VERFAHREN ZUR REGELUNG DES STEUERVENTILS EINER HOCHDRUCKPUMPE

Title (fr)
DISPOSITIF ET PROCEDE DE REGULATION DU FONCTIONNEMENT D'UNE SOUPAPE DE COMMANDE D'UNE POMPE HAUTE PRESSION

Publication
EP 1456531 B1 20090812 (DE)

Application
EP 02805260 A 20021206

Priority

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- DE 10162988 A 20011220

Abstract (en)
[origin: WO03054381A1] A high-pressure pump is provided in order to supply fuel to the fuel rail of a common rail injection system in an internal combustion engine. The input-side control valve of the pump is closed during the pumping cycle in order to separate the inner chamber of the pump from the low-pressure side. According to the invention, the valve control pulse, by which means the control valve is closed, is active when the pressure wave generated by the upward movement of the pump plunger hits the control valve. The closing of the control valve is assisted by the impact of the pressure wave.

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Citation (examination)

- US 6237573 B1 20010529 - ONISHI YOSHIHIKO [JP], et al
- EP 0802322 A1 19971022 - MITSUBISHI ELECTRIC CORP [JP]
- DE 10064055 A1 20010705 - HITACHI LTD [JP]

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WO 03054381 A1 20030703; DE 10162988 A1 20030717; DE 10162988 B4 20040115; DE 50213770 D1 20090924; EP 1456531 A1 20040915; EP 1456531 B1 20090812; US 2005224049 A1 20051013; US 7121263 B2 20061017

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