

Title (en)

Fuel injection control apparatus for an accumulator type engine

Title (de)

Kraftstoffeinspritzungssteuergerät für eine Brennkraftmaschine mit Kraftstoffspeicherleitung

Title (fr)

Dispositif de commande d'injection de combustible pour moteur à combustion interne à accumulateur

Publication

EP 0896144 A2 19990210 (EN)

Application

EP 98114568 A 19980803

Priority

JP 20918097 A 19970804

Abstract (en)

A fuel injection control apparatus for an accumulator type engine (1) efficiently reduces fuel pressure in an accumulator pipe (4) if the fuel pressure exceeds a target pressure, thereby ensuring stable combustion. Injectors (2) of a diesel engine (1) are connected to a common rail (4) provided commonly for all the cylinders (#1-#4) of the engine. The common rail (4) is connected to a supply pump (6) by a supply pipe (5). Each injector (2) has a mechanism that injects fuel into the corresponding one of the cylinders (#1-#4) when an electromagnetic valve (3) provided in the injector (2) is driven, and that releases fuel to reduce the fuel pressure in the common rail (4) during an early period (ineffective injection time) after the start of the driving of the electromagnetic valve (3). An electronic control unit (51) executes an ineffective injection control during the ineffective injection control time to reduce the fuel pressure in the common rail (4), if the target injection amount is "0" and the actual fuel pressure is greater than the target fuel pressure. The ineffective injection control time is set to greater values as the fuel temperature decreases. <IMAGE>

IPC 1-7

F02D 41/38

IPC 8 full level

F02D 41/06 (2006.01); **F02D 41/38** (2006.01); **F02D 41/40** (2006.01); **F02M 47/02** (2006.01); **F02M 63/02** (2006.01); **F02B 3/06** (2006.01);
F02D 41/12 (2006.01)

CPC (source: EP)

F02D 41/3827 (2013.01); **F02D 41/3872** (2013.01); **F02M 47/027** (2013.01); **F02M 63/0225** (2013.01); **F02B 3/06** (2013.01);
F02D 41/123 (2013.01)

Citation (applicant)

- JP H02191865 A 19900727 - NIPPON DENSO CO
- WO 9619659 A1 19960627 - BOSCH GMBH ROBERT [DE], et al

Cited by

EP2123890A1; EP2011994A1; EP1031721A3; CN109630301A; EP2187029A1; CN112055778A; EP3724478A4; EP1018600A3;
GB2364746A; GB2364746B; GB2332241B; DE102005012998B3; DE102005012997A1; DE102005012997B4; US7082928B2; US7997253B2;
WO2004094804A1; WO2006100207A1; US8240290B2; US7891342B2; US9303580B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0896144 A2 19990210; EP 0896144 A3 20000712; JP 3546285 B2 20040721; JP H1150899 A 19990223

DOCDB simple family (application)

EP 98114568 A 19980803; JP 20918097 A 19970804