

Title (en)

Accumulation-type fuel injection system and accumulation chamber pressure control method therefor

Title (de)

Speicherkraftstoffeinspritzsystem und Verfahren zur Regelung des Kraftstoffdruckes dafür

Title (fr)

Dispositif d'injection de combustible à accumulateur et méthode de commande de pression associé

Publication

EP 1024274 A3 20020327 (EN)

Application

EP 00100432 A 20000110

Priority

- JP 1992499 A 19990128
- JP 20447099 A 19990719

Abstract (en)

[origin: EP1024274A2] A spill control valve such as an electromagnetic valve (1a) of an injector (1) is ineffectively driven to open for a period (Tq) shorter than a delay period (tm) by which a nozzle needle (37) opens, when a pressure reducing condition to reduce fuel pressure in a common rail (3) is satisfied. A temperature of an injector driving circuit (79) in an ECU (7) is estimated from a coolant temperature detected by a coolant temperature sensor (71). A cycle period of an ineffective driving is determined from the estimated temperature so that a thermal load applied to the injector driving circuit does not exceed a limit. <IMAGE>

IPC 1-7

F02D 41/38; **F02M 63/02**

IPC 8 full level

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Citation (search report)

- [PX] DE 19857260 A1 19990617 - DENSO CORP [JP]
- [A] US 5711274 A 19980127 - DRUMMER EUGEN [AT]
- [A] US 5148987 A 19920922 - TAEU JUN [JP]
- [A] US 5090381 A 19920225 - TANABE YOSHIYUKI [JP]
- [A] HOFFMANN K-H ET AL: "DAS COMMON-RAIL-EINSPRITZSYSTEM-EIN NEUES KAPITEL DER DIESELEINSPRITZTECHNIK", MTZ MOTORTECHNISCHE ZEITSCHRIFT, FRANCKH'SCHE VERLAGSHANDLUNG, ABTEILUNG TECHNIK. STUTTGART, DE, vol. 58, no. 10, 1 October 1997 (1997-10-01), pages 572 - 582, XP000720118, ISSN: 0024-8525

Cited by

EP2333283A1; EP1950402A1; CN103097711A; EP2075446A3; CN114810442A; DE102005012998B3; DE102005012997A1; DE102005012997B4; CN100387825C; EP1520979A4; CN103097712A; US2013233282A1; CN103726966A; US6854445B2; WO2006100207A1; WO2006038428A1; WO233241A1; US6877487B2; US7240660B1; US8206204B2; WO2004007945A1; WO2012034773A1; US7263973B2; US7380539B2; US7389766B2

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