

Title (en)  
CONTROL DEVICE FOR INTERNAL COMBUSTION ENGINE

Title (de)  
STEUERUNGSVORRICHTUNG FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)  
DISPOSITIF DE COMMANDE POUR MOTEUR À COMBUSTION INTERNE

Publication  
**EP 2492480 A4 20140101 (EN)**

Application  
**EP 10824679 A 20100315**

Priority

- JP 2009244399 A 20091023
- JP 2010054317 W 20100315

Abstract (en)  
[origin: EP2492480A1] Provided is a control device for an internal combustion engine which can decrease a load applied to a drive system of a high pressure pump at the time of restarting the internal combustion engine from an automatic stop state of the internal combustion engine. A control device for an internal combustion engine which can execute an idling stop control includes: an idling stop condition satisfaction detection part which detects that a predetermined idling stop condition is satisfied and outputs an instruction to automatically stop the internal combustion engine; a restarting condition satisfaction detection part which detects that a predetermined restarting condition is satisfied during an automatic stop of the internal combustion engine and outputs an instruction to restart the internal combustion engine; a rail pressure detection part which detects pressure in the common rail; and a pressure control valve control part which opens the pressure control valve before restarting the internal combustion engine when the pressure in the common rail becomes a predetermined threshold value or more at the time of satisfying the restarting condition.

IPC 8 full level  
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CPC (source: EP)  
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Citation (search report)

- [Y] EP 0896145 A2 19990210 - TOYOTA MOTOR CO LTD [JP]
- [Y] FR 2924177 A3 20090529 - RENAULT SAS [FR]
- [Y] DE 102004006523 A1 20050623 - MITSUBISHI ELECTRIC CORP [JP]
- [Y] JP 2009079514 A 20090416 - DENSO CORP
- [Y] DE 19857260 A1 19990617 - DENSO CORP [JP]
- [A] EP 2022972 A2 20090211 - BOSCH GMBH ROBERT [DE]
- [EL] DE 102010063586 A1 20110630 - DENSO CORP [JP]
- See references of WO 2011048827A1

Cited by  
CN108138676A; CN105909413A; US11261820B2; US10865729B2

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