

Title (en)  
METHOD OF CONTROLLING INTERNAL COMBUSTION ENGINE

Title (de)  
VERFAHREN ZUR STEUERUNG EINES VERBRENNUNGSMOTORS

Title (fr)  
PROCÉDÉ DE COMMANDE DE MOTEUR À COMBUSTION INTERNE

Publication  
**EP 2085592 A4 20091216 (EN)**

Application  
**EP 07807736 A 20070921**

Priority

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- JP 2006310808 A 20061116
- JP 2006310809 A 20061116

Abstract (en)  
[origin: EP2085592A1] A method for controlling an internal combustion engine, in which a traveling with reduced cylinders is controlled according to the idle-speed after the engine starting, so as to restrain the discharge of white smokes at the time lag for temperature equilibration soon after a cold starting. The method comprises a coolant water temperature detecting means 10 for detecting the coolant water temperature in the internal combustion engine 1, a rotation speed detecting means 12 for detecting the rotation speed of the internal combustion engine 1 and a control means for controlling the operation of the internal combustion engine 1 in accordance with the coolant water temperature and the rotation speed. When the internal combustion engine is evaluated that it is at the cold starting and the rotation speed reaches the predetermined rotation speed after the engine starting, a traveling with reduces cylinders is performed, which reduces the number of cylinders injecting fuels for a certain period of time.

IPC 8 full level  
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CPC (source: EP KR)  
**F02D 9/02** (2013.01 - KR); **F02D 9/04** (2013.01 - EP KR); **F02D 17/02** (2013.01 - EP KR); **F02D 41/0087** (2013.01 - EP); **F02D 41/04** (2013.01 - KR); **F02D 41/064** (2013.01 - EP); **F02D 41/061** (2013.01 - EP); **F02D 41/401** (2013.01 - EP); **F02D 41/402** (2013.01 - EP); **F02D 41/403** (2013.01 - EP); **F02D 2041/389** (2013.01 - EP)

Citation (search report)

- [XAY] US 6009857 A 20000104 - HASLER GREGORY S [US], et al
- [XY] US 6520158 B1 20030218 - MILLS WAYNE LEE [US]
- [XAY] US 5868116 A 19990209 - BETTS EDWARD H [US], et al
- [XAY] WO 2005124130 A1 20051229 - MITSUBISHI MOTORS CORP [JP], et al & US 2007180817 A1 20070809 - YAMASHITA MASAYUKI [JP], et al
- [XY] US 5930992 A 19990803 - ESCH THOMAS [DE], et al
- [XY] JP 2004353516 A 20041216 - NISSAN MOTOR
- [YA] US 2002129789 A1 20020919 - FURUKAWA HIDEO [JP], et al
- [A] US 5890467 A 19990406 - ROMZEK MARTIN ANTHONY [US]
- [A] US 2004177836 A1 20040916 - HASLER GREGORY S [US], et al
- See references of WO 2008059663A1

Cited by  
CN103597192A; EP2722514B1

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**EP 07807736 A 20070921**; AT 07807736 T 20070921; DE 602007014251 T 20070921; JP 2007068404 W 20070921; KR 20097010949 A 20070921