

Title (en)

Starting control method and system for internal combustion engine

Title (de)

Steuerverfahren und -system zum Starten einer Brennkraftmaschine

Title (fr)

Dispositif et procédé pour contrôler le démarrage d'un un moteur à combustion interne

Publication

**EP 1505287 A3 20050330 (EN)**

Application

**EP 04018397 A 20040803**

Priority

JP 2003206054 A 20030805

Abstract (en)

[origin: EP1505287A2] A starting control method for an internal combustion engine (E) in which output of the engine (E) is transmitted to an external component through a flywheel (F), characterized in that if an engine rotating speed remains in a resonance rotating speed region of the flywheel (F) for a predetermined period when the engine starts, a divergence control for controlling a fuel injection to make the engine rotating speed diverge from the resonance rotating speed region is performed. According to this, problems caused by the resonance between the crankshaft and the flywheel (F) at the time of engine starting can be prevented. <IMAGE>

IPC 1-7

**F02D 41/06**; F02D 41/08; F16F 15/14; F16F 15/131; F16F 15/12

IPC 8 full level

**F02B 77/00** (2006.01); **F02D 41/06** (2006.01); **F02D 45/00** (2006.01); **F02N 11/08** (2006.01); **F02D 41/08** (2006.01); **F02N 11/04** (2006.01)

CPC (source: EP)

**F02D 41/062** (2013.01); **F02D 41/08** (2013.01); **F02N 11/04** (2013.01)

Citation (search report)

- [X] DE 19727595 A1 19990128 - VOLKSWAGEN AG [DE]
- [PA] DE 10245640 B3 20040408 - SIEMENS AG [DE]

Cited by

EP2754883A4; FR3068393A1; CN113218664A; EP3141727A1; CN106481467A; EP3550131A4; EP3550130A4; US11168631B2; US10890122B2; US10883464B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1505287 A2 20050209**; **EP 1505287 A3 20050330**; **EP 1505287 B1 20070207**; DE 602004004608 D1 20070322; DE 602004004608 T2 20071108; ES 2280871 T3 20070916; JP 2005054601 A 20050303; JP 4135587 B2 20080820

DOCDB simple family (application)

**EP 04018397 A 20040803**; DE 602004004608 T 20040803; ES 04018397 T 20040803; JP 2003206054 A 20030805