

Title (en)

Method and apparatus to control an ignition system with two coils for one spark plug

Title (de)

Verfahren und Vorrichtung zur Steuerung eines Zündsystems mit zwei Spulen für eine Zündkerze

Title (fr)

Procédé et appareil pour commander un système d'allumage avec deux bobines pour une bougie

Publication

EP 2876298 A1 20150527 (EN)

Application

EP 13193801 A 20131121

Priority

EP 13193801 A 20131121

Abstract (en)

An ignition system including a spark plug control unit adapted to control at least two stages comprising a first transformer (T1) including a first primary winding (L1) inductively coupled to a first secondary winding (L2); a second transformer (T2) including a second primary winding (L3) inductively coupled to a second secondary winding (L4); said control unit enabled to simultaneously energize and deenergize primary windings (L1, L3) by simultaneously switching on and off two corresponding switches (Q1, Q2) to maintain a continuous ignition fire, wherein means to implement operation is based solely on selective switching of switches Q1 and Q2.

IPC 8 full level

F02P 3/04 (2006.01); **F02P 3/05** (2006.01); **F02P 3/055** (2006.01); **F02P 15/10** (2006.01); **F02P 17/12** (2006.01)

CPC (source: EP)

F02P 3/0442 (2013.01); **F02P 3/053** (2013.01); **F02P 3/0554** (2013.01); **F02P 15/10** (2013.01); **F02P 17/12** (2013.01)

Citation (applicant)

EP 2325476 A1 20110525 - DELPHI TECH INC [US]

Citation (search report)

- [XD] EP 2325476 A1 20110525 - DELPHI TECH INC [US]
- [X] DE 102012106207 B3 20130523 - BORGLANDER BERU SYSTEMS GMBH [DE]
- [X] EP 2410169 A1 20120125 - DIAMOND ELECTRIC MFG [JP]
- [A] DE 102007034390 A1 20090129 - DAIMLER AG [DE]

Cited by

DE102017216227B3; GB2549251A; GB2549251B; GB2599420A; GB2599420B; GB2547003A; US10788006B2; US10844825B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2876298 A1 20150527

DOCDB simple family (application)

EP 13193801 A 20131121