

Title (en)
Multi-charge ignition system

Title (de)
Multiladungszündsystem

Title (fr)
Système d'allumage à charges multiples

Publication
EP 2650530 A1 20131016 (EN)

Application
EP 12164128 A 20120413

Priority
EP 12164128 A 20120413

Abstract (en)
An ignition system and method of multicharge ignition are presented. The system comprises an ignition coil (16) having primary (18) and secondary (20) windings and a control unit (30) configured to operate charging and discharging phases of the ignition coil (16) by actuation of a switching device (22) in order to create a first spark followed by a plurality of subsequent sparks at prescribed timings (t s1 ...t s4) . The control unit (30) is further configured to, during a respective spark-interval (T si), monitor the energy level in the secondary winding (20) and stop the discharge phase and operate a charging phase, at the moment when the remaining time until the next prescribed timing (t si) corresponds to the time required to charge the primary winding (18) to a prescribed energy level (I P _tgt).

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F02P 3/08 (2006.01); **F02P 15/08** (2006.01)

CPC (source: EP)
F02P 3/0869 (2013.01); **F02P 15/08** (2013.01); **F02P 5/1502** (2013.01); **F02P 17/12** (2013.01)

Citation (applicant)
US 6378513 B1 20020430 - BOYER JOHN W [US], et al

Citation (search report)
• [X] US 6186130 B1 20010213 - SKINNER ALBERT ANTHONY [US], et al
• [XA] US 2003089355 A1 20030515 - VOGEL MANFRED [DE], et al
• [X] EP 2290223 A1 20110302 - BOSCH GMBH ROBERT [DE]
• [A] US 6397827 B1 20020604 - KATO TAKEHIKO [JP], et al
• [X] DE 102007034399 A1 20090129 - DAIMLER AG [DE]
• [X] DE 102011012093 A1 20111215 - DAIMLER AG [DE]

Citation (examination)
• DE 102008041386 A1 20090226 - DENSO CORP [JP]
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Designated extension state (EPC)
BA ME

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