

Title (en)

METHOD AND DEVICE FOR IDENTIFYING A PHASE OF A FOUR-STROKE SPARK IGNITION ENGINE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERKENNUNG EINER PHASE EINES 4-TAKT-OTTOMOTORS

Title (fr)

PROCEDE ET DISPOSITIF DE RECONNAISSANCE D'UNE PHASE D'UN MOTEUR A ALLUMAGE COMMANDE A 4 TEMPS

Publication

EP 1476648 B1 20071226 (DE)

Application

EP 02796519 A 20021223

Priority

- DE 0204729 W 20021223
- DE 10201164 A 20020115

Abstract (en)

[origin: WO03060307A1] The invention relates to a method and device for identifying the phase of a four-stroke spark ignition engine, particularly of a gasoline direct injection engine. The aim of the invention is to effect a reliable phase identification without a great deal of complexity. To this end, a crankshaft is turned with at least one piston during the starting phase. At at least two successive top dead centers (Z-OT, LW-OT) of the piston and without the supply of fuel, an ignition is initiated by an ignition coil (2). A primary or secondary current or a primary or secondary voltage is measured during the measuring period extending at least over a combusting period (t-BR-Z-OT, t-BR-LW-OT) after ignition. The measuring signals of successive ignitions are compared in order to determine which of the successive top dead centers is an ignition top dead center (Z-OT) and which is a charge cycle top dead center (LW-OT).

IPC 8 full level

F02D 41/34 (2006.01); **F02P 3/04** (2006.01); **F02D 45/00** (2006.01); **F02P 17/12** (2006.01)

CPC (source: EP US)

F02D 41/009 (2013.01 - EP US); **F02P 17/12** (2013.01 - EP US)

Cited by

WO2024064226A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 03060307 A1 20030724; DE 10201164 A1 20030814; DE 50211436 D1 20080207; EP 1476648 A1 20041117; EP 1476648 B1 20071226; JP 2005515346 A 20050526; US 2005126544 A1 20050616; US 6971372 B2 20051206

DOCDB simple family (application)

DE 0204729 W 20021223; DE 10201164 A 20020115; DE 50211436 T 20021223; EP 02796519 A 20021223; JP 2003560371 A 20021223; US 50128105 A 20050118