

Title (en)

Method for detecting the phase ignition of a cylinder in an internal combustion engine

Title (de)

Verfahren zur Erkennung der Phasenlage eines Zylinders zur Zündung in einer Brennkraftmaschine

Title (fr)

Procédé pour détecter la phase d'allumage d'un cylindre d'un moteur à combustion interne

Publication

EP 0829642 B1 20040303 (FR)

Application

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Priority

FR 9611282 A 19960911

Abstract (en)

[origin: EP0829642A1] In the direct ignition system (2), sparking plugs (8,9) in cylinders whose pistons pass TDC simultaneously are operated in pairs from opposite ends of a common ignition coil secondary (6). In alternate revolutions, high (20kV) and low (2kV) positive voltages to frame (10) appear across one plug, the corresponding voltages on the other having low and high negative values, respectively. High value pulses coincide, in each cylinder, with the ignition phase. The coil core (7), electrically floating, is capacitively coupled to the secondary winding, and follows its mean voltage in polarity and magnitude. An engine management signal (Vs1), reproducing these variations and thus identifying ignition phases, is derived from a resistance (15)/zener diode (16) series detector circuit (1) connected between coil core (7) and frame (14).

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