Title (en)

INSTALLATION FOR DETECTING A MISFIRE OR INCOMPLETE COMBUSTION IN A COMBUSTION ENGINE

Publication

**EP 0408916 A3 19920219 (DE)**

Application

**EP 90111724 A 19900621**

Priority

DE 3924130 A 19890720

Abstract (en)

[origin: US5045796A] A circuit for recognizing missing or poor firings in Otto (gasoline) engines with multi-circuit ignition systems features a voltage tap on the primary side of each ignition coil (10, 11), leading to a respective controllable transistor (16, 19). A common junction point (21) for the respective transistors provides signals, representative of the control states of the transistors, for evaluation (32). These signals correspond to the respective spark burning voltages. The cylinders fire sequentially, so the voltage patterns of the respective cylinders appear sequentially at the common junction point, and it is possible, even in multi-circuit ignition systems, to monitor the individual ignition circuits in a simple manner, and to interrupt fuel supply to any less-than-optimally firing cylinder, thereby preventing unburnt hydrocarbon overload on the catalytic converter and on the environment. Preferably, the evaluation circuit includes an A/D converter (33) and an INTEL 8051 microprocessor (34).

IPC 1-7

**F02P 9/00**; F02P 15/00

IPC 8 full level

**F02P 9/00** (2006.01); **F02P 15/00** (2006.01); **F02P 17/02** (2006.01); **F02P 17/12** (2006.01); F02B 1/04 (2006.01)

CPC (source: EP US)

**F02P 17/02** (2013.01 - EP US); **F02P 17/12** (2013.01 - EP US); F02B 1/04 (2013.01 - EP US)

Citation (search report)

- [X] GB 2172115 A 19860910 - FKI CRYPTON LIMITED
- [AP] EP 0344349 A1 19891206 - BOSCH GMBH ROBERT [DE]
- [X] PATENT ABSTRACTS OF JAPAN vol. 143, no. 122 (M-807)27. März 1989 & JP-A-63 295 840 ( MITSUBISHI ELECTRIC CORP. ) 2. Dezember 1988

Cited by

US5438268A; WO9210673A1

Designated contracting state (EPC)

DE FR IT SE

DOCDB simple family (publication)

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**EP 90111724 A 19900621**; DE 3924130 A 19890720; DE 59010505 T 19900621; US 54705690 A 19900629