

Title (en)

An apparatus for detecting misfiring of an internal combustion engine

Title (de)

Vorrichtung zur Erkennung von Fehlzündungen für eine Brennkraftmaschine

Title (fr)

Dispositif de détection de ratés d'allumage pour un moteur à combustion interne

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Application

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Priority

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Abstract (en)

An object of the present invention is to provide an apparatus for detecting misfiring of internal combustion engines capable of detecting the misfiring reliably even though an ignition plug fouls. When a mixture in a cylinder burns normally due to a discharge at an ignition plug 12, a voltage developed across a detection resistor 16 is fetched into a microcomputer 18 during a period other than a period where ions are generated. Thus, an insulation resistance due to fouling of the ignition plug 12 is measured. If the voltage developed across the detecting resistor 16 which is fetched into the microcomputer 18 during the period where ions are generated is equal to or larger than a threshold value, it is determined that mixture has burnt normally. If the voltage is smaller than the threshold value, it is determined that a misfire has occurred. The threshold value is corrected according to the decrease of insulation resistance. Consequently, though the ignition plug fouls, misfiring can be detected reliably. <IMAGE>

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Cited by

EP1081375A3; DE10229848B4; EP0982496A1; US6371078B1; US6512375B1; US6813933B1; US7348782B2; US6279538B1; WO0134972A1

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