

Title (en)

METHOD OF CONTROLLING A LAMBDA PROBE REGULATED FUEL INJECTION AND CONTROLLED IGNITION ENGINE

Publication

EP 0146426 B1 19880511 (FR)

Application

EP 84402175 A 19841030

Priority

FR 8317538 A 19831104

Abstract (en)

[origin: EP0146426A1] 1. A process for controlling a fuel injection engine fitted with an electronic injection and ignition computer coupled to a probe for detecting the oxygen content of the exhaust gases, comprising the following steps : a) determining at least the operating speed and the load of the engine as engine operating parameters, b) determining in dependence on said parameters a nominal injection time T_{in} corresponding to lean fuel metering of the fuel mixture, c) periodically causing temporary enrichment of said mixture by a predetermined increase in the nominal injection time T_{in} , said increase being equal to $T_{in} \cdot x$ in which x is a coefficient of less than 1, which predetermined enrichment is to restore the lean fuel mixture to a stoichiometric mixture, d) determining if the signal supplied by the probe for detecting the oxygen content of the exhaust gases and corresponding to the enriched mixture indicates a stoichiometric mixture or a richer mixture than stoichiometric or a leaner mixture than stoichiometric, e) in dependence on said determining step modifying the nominal injection time T_{in} so as to bring the enriched mixture closer to a stoichiometric mixture, and f) continuing the control mode corresponding to a lean fuel metering in the fuel mixture on the basis of the modified nominal injection time T_{in} , characterised by the following steps : g) determining in dependence on the engine operating parameters a nominal ignition advance angle AV_n corresponding to the nominal injection time T_{in} , and h) causing, with a predetermined delay with respect to the beginning of periodic enrichment of step c) above, a temporary reduction in the nominal ignition advance angle AV_n equal to $k \cdot x \cdot AV_n$ in which x is the coefficient of less than 1 used for computing the enrichment $T_{in} \cdot x$ and k is a constant of predetermined value.

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