

Title (en)

Digital control apparatus for an engine and control method thereof

Title (de)

Digitale Steuervorrichtung für eine Brennkraftmaschine und zugehöriges Steuerungsverfahren

Title (fr)

Appareil numérique de contrôle de moteur à combustion interne et méthode correspondante

Publication

EP 1348856 A1 20031001 (EN)

Application

EP 03006712 A 20030324

Priority

JP 2002086555 A 20020326

Abstract (en)

A control apparatus (40) for an engine (1) comprises roughness control means (46) which sets a control variable (IG; INJ; A/F) for the adjusting means (8, 28, 43, 44) including an injector (28) so as to maintain the combustion stability of the engine (1) within a certain range. The control apparatus (40) further includes: mean deviation measuring means (46a) is provided which measures a mean deviation (sigma) of the fluctuation in angular velocity, for a plurality of control variables (IG; INJ; A/F) set by control variable setting means (46d) of the roughness control means (46) under the same operational condition of the engine (1); predictive value calculating means (46d) is provided which calculates a predictive value of the mean deviation (sigma) in the case that a control variable (IG; INJ; A/F) for the adjusting means (8, 28, 43, 44) is changed, on the basis of the measured value of the mean deviation (sigma) determined for the plural control variables (IG; INJ; A/F); and judging means (46c) is provided which judges of the engine (1) is in the proper combustion condition, from a difference (beta) between the predictive value and the measured value of the mean deviation (sigma) measured after the change in control variable (IG; INJ; A/F). Accordingly, the accurate determination can be made as to whether the engine (1) is in the stable combustion condition, without any erroneous determination. <IMAGE>

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Citation (applicant)

JP H09264183 A 19971007 - MAZDA MOTOR

Citation (search report)

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DE

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