

Title (en)

LAMBDA-CONTROLLED MIXTURE-MEASURING SYSTEM FOR AN INTERNAL-COMBUSTION ENGINE

Publication

EP 0157004 B1 19891011 (DE)

Application

EP 84116240 A 19841222

Priority

DE 3408635 A 19840309

Abstract (en)

[origin: US4671244A] The invention is directed to a mixture metering arrangement for an internal combustion engine and includes an exhaust-gas sensor which is exposed to the exhaust gas of the internal combustion engine. The exhaust-gas sensor indicates the air ratio λ and preferably has a two-level characteristic. The sensor output signals are acted upon by a follow-on controller which is preferably a PI-controller. The controller output quantity acts upon the mixture composition in a corrective fashion. In this arrangement, the control oscillation of the controller output quantity is adjusted to a predetermined amplitude by means of a superposed control. In particular, the integral component of the control oscillation is influenced in a manner causing it to have the same amplitude as the proportional component while in the steady operating condition. Thus, it is possible to maintain the maximum control frequency in any operating range of the internal combustion engine so that the controller always operates at its optimum. In addition, the effects of deviations occurring from one engine to another or from one exhaust-gas sensor to another as well as of long-term variations are suppressed.

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IPC 8 full level

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