

Title (en)
MEASURING SYSTEM FOR THE FUEL-AIR MIXTURE OF A COMBUSTION ENGINE

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Application
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Abstract (en)
[origin: US4674459A] The invention is directed to an apparatus for metering an air-fuel mixture to an internal combustion engine. The apparatus includes a characteristic field set up with operating quantities of the internal combustion engine for anticipatorily controlling engine variables that influence the air-fuel mixture and a control arrangement, responsive to at least one engine variable, for correctively influencing the characteristic field values. The characteristic field values are stored in the characteristic field and selected in dependence on operating quantities of the internal combustion engine. The characteristic field values are modified by means of different control methods to correctively influence the same. More specifically, the control methods include a control to a minimal specific fuel consumption in the lower and part-load ranges as well as a control to maximum power in the upper load range as may be necessary. This control arrangement can be realized, on the one hand, with an extreme-value control which is superposed either on the air or quantity of fuel delivered to the motor or, on the other hand, with a direct control of the air ratio lambda with an exhaust gas probe, for example. With the apparatus of the invention, a minimal specific fuel consumption with reduced exhaust gas emissions are realized while at the same time ensuring a satisfying driving behavior of the vehicle.

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