Title (en)

METHOD AND APPARATUS FOR ADAPTING THE SHAPES OF CONTROLLER CHARACTERISTICS

Publication

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Application

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Priority

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Abstract (en)

[origin: US4567869A] The invention is directed to a method and an apparatus for adapting the characteristic of a final controlling element to eliminate disturbances and other undesired influencing quantities and, particularly for adapting the controller characteristic for the idle air charge control of internal combustion engines. A desired air quantity value issued by a regulator on the basis of various operating conditions is corrected by multiplicative and/or additive action prior to being delivered to an idle control element, for example, by means of which a change is effected in the cross-sectional area of the opening of a bypass valve arranged in the fuel metering arrangement of the internal combustion engine. This correction relates to adapting a characteristic of the idle control element with respect to offset and slope. This is accomplished by evaluating the output signals of at least one offset integrator or one slope integrator to generate an adapted electrical actuating quantity for the idle control element. The integrators are released in dependence on operating conditions and receive an input differential signal obtained from the signal indicative of the desired air quantity value from the regulator and a signal indicative of the actual air quantity.

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