

Title (en)

METHOD AND APPARATUS FOR SPECIFICALLY CONTROLLING EACH CYLINDER GROUP IN A MULTICYLINDER ENGINE

Publication

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Application

EP 85108335 A 19850705

Priority

DE 3429525 A 19840810

Abstract (en)

[origin: US4718015A] The invention is directed to a method for the cylinder-group specific control of a multi-cylinder internal combustion engine and an apparatus for carrying out the method for cylinder-group specific optimization of the efficiency of the internal combustion engine. The control strategy includes a first step for generating time-dependent signals to influence the air ratio λ of the air-fuel mixture supplied to at least any two cylinder groups each made up of at least one cylinder. The air ratio λ is influenced such that the air ratio is modified in a cylinder-group specific manner and that the mean air ratio of the air-fuel mixture supplied to all cylinders is maintained constant. A second step follows to detect the reaction of the internal combustion engine to the signals of the first step, this reaction manifesting itself in a modification of an output quantity. Then follows a third step to influence the efficiency of the individual cylinder groups of the internal combustion engine in accordance with the results of the second step. This ensures that each cylinder group or each cylinder receives an air-fuel mixture having an air ratio at which efficiency is at a maximum. For a given engine design and for given operating conditions, it is thus possible for the engine to operating in the range of theoretically minimum fuel consumption.

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Cited by

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