Title (en)

VARIABLE ETHANOL OCTANE ENHANCEMENT OF GASOLINE ENGINES

Title (de)

VARIABLE STEIGERUNG DER OKTANZAHL IN BENZINMOTOREN MITTELS ETHANOL

Title (fr)

SYSTEME DE GESTION DE CARBURANT POUR L'AMELIORATION DE L'INDICE D'OCTANE DE L'ETHANOL DE MOTEURS A ESSENCE

Publication

EP 1815114 A4 20150121 (EN)

Application

EP 05851653 A 20051114

Priority

- US 2005041317 W 20051114
- US 99177404 A 20041118
- US 22975505 A 20050919

Abstract (en)

[origin: WO2006055540A1] Fuel management system for efficient operation of a spark ignition gasoline engine. Injectors inject an anti-knock agent such as ethanol directly into a cylinder of the engine. A fuel management microprocessor system controls injection of the anti-knock agent so as to control knock and minimize that amount of the anti-knock agent that is used in a drive cycle. It is preferred that the anti-knock agent is ethanol. The use of ethanol can be further minimized by injection in a non-uniform manner within a cylinder. The ethanol injection suppresses knock so that higher compression ratio and/or engine downsizing from increased turbocharging or supercharging can be used to increase the efficiency of the engine.

IPC 8 full level

F02B 17/00 (2006.01); **F02B 75/12** (2006.01); **F02D 19/06** (2006.01); **F02D 19/08** (2006.01); **F02D 41/00** (2006.01)

CPC (source: EP)

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Citation (search report)

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- See references of WO 2006055540A1

Designated contracting state (EPC)

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US 2005041317 W 20051114; CA 2588385 A 20051114; EP 05851653 A 20051114