

Title (en)

Control method for a fuel injection engine.

Title (de)

Steuerverfahren für einen Motor mit Kraftstoffeinspritzung.

Title (fr)

Méthode de commande pour moteur à injection de carburant.

Publication

**EP 0184626 A2 19860618 (EN)**

Application

**EP 85112425 A 19851001**

Priority

JP 24812784 A 19841126

Abstract (en)

The fuel injection quantity required for maintaining the air-fuel ratio of the mixture supplied to each cylinder of an engine (10) at a desired value is determined by calculating from sensor data a deposition rate  $X$  at which injected fuel deposits and forms film mass on an intake manifold wall (21) of the engine and a vaporization rate  $1/\tau$  at which the film mass vaporizes from the manifold wall, calculating a current film mass quantity  $M_f$  from the calculated  $X$  and  $1/\tau$  and the fuel quantity by the preceding injection, calculating a desired fuel quantity  $Q_a/(A/F)$  to be supplied to the cylinder from an intake air flow  $Q_a$  and a desired air-fuel ratio  $A/F$  and determining a current fuel injection quantity  $G_f$  from the calculation results in accordance with the following equation  $G_f = Q_a/(A/F) - M_f(1/\tau)$ . Also, an accurate film mass quantity estimation is accomplished by subtracting a calculated value of a carry-over fuel quantity to be delivered to the cylinder from the film mass quantity estimated during the preceding period and adding a calculated value of a wall deposition fuel quantity per period obtained on the basis of an actual fuel injection quantity per stroke of the engine to the remaining film mass quantity thereby estimating a current film mass quantity.

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CPC (source: EP KR)

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Cited by

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