Title (en)

Electronically controlled internal-combustion engine fuel injection supply device.

Title (de)

Einrichtung zur Kraftstoff-Einspritzung für einen elektronisch gesteuerten Brennkraftmotor.

Title (fr)

Dispositif d'alimentation par injection pour moteur à combustion interne, à commande électronique.

Publication

EP 0390667 B1 19950614 (FR)

Application

EP 90400828 A 19900327

Priority

FR 8904287 A 19890331

Abstract (en)

[origin: EP0390667A1] The device has applications particularly in the multi-point injection system of motor vehicle engines. It comprises at least one injector (34) and an electronic control circuit (46) connected to the engine's operating parameter sensors, in particular those sensing its speed, and supplying the injector with periodic cyclical ratio signals as a function of the said parameters, synchronised with the movements of the engine when the latter is operating normally. The electronic control circuit (46) is designed to apply asynchronous signals to the injector or to each injector (34) at a frequency very much higher than that which would be provided by the normal operating distribution as long as the engine speed does not reach a threshold determined from the initial starting. <IMAGE>

IPC 1-7

F02D 41/06; F02D 41/34

IPC 8 full level

F02D 41/06 (2006.01); **F02D 41/34** (2006.01); **F02D 45/00** (2006.01)

CPC (source: EP US)

F02D 41/062 (2013.01 - EP US); **F02D 41/064** (2013.01 - EP US)

Citation (examination)

Bosch, "Technische Unterrichtung", Motronic, 1 éd,, 1983, p. 20-24

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

EP 0390667 A1 19901003; **EP 0390667 B1 19950614**; DE 69020029 D1 19950720; DE 69020029 T2 19950921; ES 2073548 T3 19950816; FR 2645210 A1 19901005; FR 2645210 B1 19950324; JP 2997704 B2 20000111; JP H0323338 A 19910131; US 5033439 A 19910723

DOCDB simple family (application)

EP 90400828 A 19900327; DE 69020029 T 19900327; ES 90400828 T 19900327; FR 8904287 A 19890331; JP 8475790 A 19900330; US 49373190 A 19900315