

Title (en)

Control system for controlling the supply of fuel to an internal combustion engine.

Title (de)

Regeleinrichtung zum Steuern der Kraftstoffzufuhr von Verbrennungsmotoren.

Title (fr)

Système de réglage pour commander l'alimentation en carburant d'un moteur à combustion interne.

Publication

**EP 0051530 A1 19820512 (EN)**

Application

**EP 81401705 A 19811027**

Priority

US 20382780 A 19801104

Abstract (en)

A control system for controlling the supply of fuel from a source (32) to an internal combustion engine (16) having a crankshaft (26) and a plurality of cylinders, the system comprising at least one injector (10) having a body (70), a primary pumping plunger (20) and a secondary plunger (80) positioned within said body for movement therein, a nozzle (84) situated contiguous with the engine (16), a timing chamber (72) defined in said body between said primary pumping plunger (20) and said secondary plunger (80), a metering chamber (74) defined in said body between said secondary plunger (80) and said nozzle (84), timing and metering passages (42, 44, 46, 48, 50, 92) in said body (70) of said injector (10) for receiving pressurized fuel and transmitting said fuel into said timing chamber (72) and said metering chamber (74), means (38, 94, 100) for controlling (1) the timing of the discharge of fuel from the metering chamber (74) through the nozzle (84) and (2) the quantity of fuel stored in said metering chamber (74), characterized in that it includes a control valve (94, 100) in each of said timing and metering passages (44, 46) for controlling the flow of fuel from the source (32) to said timing chamber (72) and said metering chamber (74), and means for pulsing in an on/off fashion each of said control valves in response to engine operating conditions.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

**F02M 57/024** (2013.01); **F02M 59/20** (2013.01); **F02M 59/32** (2013.01)

Citation (search report)

- CH 391383 A 19650430 - CAV LTD [GB]
- GB 2030222 A 19800402 - BENDIX CORP
- US 4036195 A 19770719 - BAILEY JOHN M
- GB 1080311 A 19670823 - WILLIAM FRIEDLANDER
- FR 2212496 A1 19740726 - CAV LTD [GB]
- GB 490547 A 19380817 - PREC MECANIQUE

Cited by

EP0133203A3; EP0091862A1; KR101253118B1; EP0136551A3

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DOCDB simple family (application)

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