

Title (en)

Fuel injection system and fuel pump

Title (de)

Kraftstoffeinspritzsystem und Kraftstoffpumpe

Title (fr)

Système d'injection de carburant et pompe à carburant

Publication

EP 2796705 A1 20141029 (EN)

Application

EP 13164627 A 20130422

Priority

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Abstract (en)

A fuel injection system (100) for an internal combustion engine is disclosed. The fuel injection system comprises at least one electronically-controlled fuel injector (102), a fuel pump (104) for supplying pressurised fuel to the or each injector (102), and a controller (130) arranged to control the injection of fuel from the or each injector (102). The fuel pump (104) comprises a pump chamber (146), a pumping element (140), and a drive mechanism (360) for driving the pumping element (140) in a pumping stroke in which the volume of the pump chamber (146) is reduced, and a filling stroke in which the volume of the pump chamber (146) is increased and in which fuel is admitted to the pump chamber (146) from a fuel source (116). The drive mechanism (360) comprises a biasing arrangement (468) arranged to apply a resilient biasing force, such as a spring force, to the pumping element (140) to drive the pumping stroke. In this way, the resilient biasing force acts to pressurise the fuel for injection, providing a simplified fuel injection system with electronic control of the injection timing and duration. Fuel pumps suitable for use in such a system are also disclosed.

IPC 8 full level

F02M 59/18 (2006.01)

CPC (source: EP)

F02M 59/18 (2013.01)

Citation (applicant)

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