

Title (en)
COMMON RAIL INJECTOR

Title (de)
COMMON-RAIL-INJEKTOR

Title (fr)
INJECTEUR A RAMPE COMMUNE

Publication
EP 1117922 B1 20050316 (DE)

Application
EP 00962184 A 20000801

Priority
• DE 0002532 W 20000801
• DE 19936669 A 19990804

Abstract (en)
[origin: WO0111220A1] The invention relates to a common rail injector for injecting fuel in a common rail injection system of an internal combustion engine. Said injector has an injector housing (1), comprising a fuel inlet (11) which is in linked to a central high-pressure accumulator outside the injector housing (1) and to a pressure chamber (8) inside the injector housing (1), from which highly pressurised fuel is injected, depending on the position of a control valve (22). Said control valve causes a nozzle needle (5) which can be displaced axially back and forth in a longitudinal bore (4) of the injector against the preloading force of a nozzle spring (12) which is enclosed in a nozzle-spring chamber (10) to be lifted from a seat, whenever the pressure in the pressure chamber (8) is greater than the pressure in a control chamber (15). Said control chamber is connected to the fuel inlet (11) via an inlet throttle (19; 25, 26) and to a relief chamber via a fuel outlet (20). In order to produce a cost-effective common rail injector with a simple construction, the control chamber (15) is integrated into the opposite end of the nozzle needle (5) from the combustion chamber.

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F02M 47/02 (2013.01 - KR); **F02M 47/027** (2013.01 - EP); **F02M 2200/21** (2013.01 - EP)

Citation (examination)
• EP 0449763 B1 19941012 - STANADYNE AUTOMOTIVE CORP [US]
• US 4700891 A 19871020 - HANS WALDEMAR [DE], et al
• GB 862382 A 19610308 - CATERPILLAR TRACTOR CO

Cited by
DE102013225107A1

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WO 0111220 A1 20010215; AT E291169 T1 20050415; CZ 20011138 A3 20020116; DE 19936669 A1 20010222; DE 50009786 D1 20050421; EP 1117922 A1 20010725; EP 1117922 B1 20050316; JP 2003506621 A 20030218; KR 20010075416 A 20010809

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