

Title (en)

Fuel injection device for internal combustion engine

Title (de)

Kraftstoff-Einspritzvorrichtung für eine Brennkraftmaschine

Title (fr)

Dispositif d'injection de combustible pour un moteur à combustion interne

Publication

**EP 1413742 B1 20070808 (DE)**

Application

**EP 03011894 A 20030527**

Priority

DE 10248379 A 20021017

Abstract (en)

[origin: EP1413742A1] The device has a housing with an injection region, an aperture with two coaxial valve elements and valve seats, an actuating device that opens the shorter inner valve element, a control piston with a pressure surface with resultant force in the closing direction bounding a control chamber. The actuating device exerts an approximately constant opening force on the inner element. The fluid pressure in the control chamber can temporarily reduce. The device has a housing with an injection region, an aperture (44) with two coaxial valve elements (46,48) that interact with valve seats (52,56) in the injection region, an actuating device that opens the shorter inner valve element at least at times, a control piston (92) interacting with the inner element with a pressure surface whose resultant force acts in the closing direction and bounds a control chamber (104). The actuating device exerts an approximately constant opening force on the inner element and a fluid pressure occurs in the control chamber that can temporarily reduce.

IPC 8 full level

**F02M 45/08** (2006.01); **F02M 47/02** (2006.01); **F02M 63/02** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)

**F02M 45/086** (2013.01 - EP US); **F02M 47/027** (2013.01 - EP US); **F02M 63/0225** (2013.01 - EP US); **F02M 2200/46** (2013.01 - EP US)

Cited by

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Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 1413742 A1 20040428**; **EP 1413742 B1 20070808**; DE 10248379 A1 20040429; DE 50307858 D1 20070920; US 2004129805 A1 20040708; US 6971592 B2 20051206

DOCDB simple family (application)

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