

Title (en)

Fuel injection system for internal combustion engine

Title (de)

Kraftstoffeinspritzeinrichtung für eine Brennkraftmaschine

Title (fr)

Système d'injection de carburant pour moteur à combustion interne

Publication

**EP 1318293 B1 20070829 (DE)**

Application

**EP 02023348 A 20021018**

Priority

DE 10160258 A 20011207

Abstract (en)

[origin: EP1318293A2] The fuel injection device has a fuel injection valve (12) and a high pressure fuel pump (10) with first and second pistons (18,60). The first pump piston comes into contact with the second pump piston after an initial delivery stroke so that the second piston likewise performs a delivery stroke and bounds a working chamber (66) connected to a control pressure chamber.

IPC 8 full level

**F02M 57/02** (2006.01); **F02M 45/02** (2006.01); **F02M 45/04** (2006.01); **F02M 45/06** (2006.01); **F02M 45/08** (2006.01); **F02M 47/02** (2006.01); **F02M 59/36** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP US)

**F02M 45/02** (2013.01 - EP US); **F02M 45/04** (2013.01 - EP US); **F02M 45/06** (2013.01 - EP US); **F02M 57/02** (2013.01 - EP US); **F02M 59/366** (2013.01 - EP US); **F02M 61/205** (2013.01 - EP US)

Cited by

CN102369349A

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

**EP 1318293 A2 20030611**; **EP 1318293 A3 20060322**; **EP 1318293 B1 20070829**; DE 10160258 A1 20030618; DE 50210802 D1 20071011; US 2003106948 A1 20030612; US 6688541 B2 20040210

DOCDB simple family (application)

**EP 02023348 A 20021018**; DE 10160258 A 20011207; DE 50210802 T 20021018; US 31434602 A 20021209