

Title (en)  
FUEL INJECTION PUMP FOR INTERNAL-COMBUSTION ENGINES

Publication  
**EP 0236691 B1 19890920 (DE)**

Application  
**EP 87100605 A 19820922**

Priority  
DE 3138607 A 19810929

Abstract (en)  
[origin: US4796592A] A fuel injection pump for internal combustion engines is proposed having a hydraulic instant-of-injection adjuster, which is exposed to an rpm-dependent pressure formed with the aid of a pressure control valve; the control of the pressure control valve is effected by means of variations of the control pressure acting upon it. This control is accomplished with the aid of at least one electrically controlled valve which is controlled by a control device in accordance with operating parameters. In this cost-efficient manner, the correct adjustment of the instant of injection can be established very precisely over the entire operating range of the engine, including the warm-up phase, at varying operating conditions.

IPC 1-7  
**F02D 1/18**

IPC 8 full level  
**F02D 41/40** (2006.01); **F02D 1/18** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)  
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**EP 87100605 A 19820922**; DE 3138607 A 19810929; DE 3278508 T 19820922; DE 3279951 T 19820922; EP 82108762 A 19820922; JP 16871582 A 19820929; US 87113586 A 19860602