

Title (en)  
FUEL INJECTION PUMP

Title (de)  
KRAFTSTOFFEINSPRITZPUMPE

Title (fr)  
POMPE D'INJECTION DE CARBURANT

Publication  
**EP 1049860 A1 20001108 (DE)**

Application  
**EP 99964368 A 19991124**

Priority  
• DE 9903722 W 19991124  
• DE 19854766 A 19981127

Abstract (en)  
[origin: DE19854766A1] Disclosed is a fuel injection pump with a cam drive and an injection-adjusting piston which acts upon the cam drive in order to time the beginning of the injection. Said piston comprises at least one pressure chamber (17) at its face end. Said pressure chamber can either be connected to a pressure source (38) having a discharge line (36) via a control valve (29) or can be completely closed, whereby the control valve is actuated by an electromagnet, preferably a proportional electromagnet. High efficiency of the timing of the beginning of the injection is thereby achieved with little need for adjusting means; the advantage is that the injection-adjusting piston (15) is only axially charged and that friction forces are thus eliminated at the circumference of the injection-adjusting piston.

IPC 1-7  
**F02D 1/18**; **F02M 41/14**

IPC 8 full level  
**F02D 1/18** (2006.01); **F02D 41/40** (2006.01); **F02M 41/12** (2006.01); **F02M 41/14** (2006.01)

CPC (source: EP KR US)  
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Citation (search report)  
See references of WO 0032919A1

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DOCDB simple family (publication)  
**DE 19854766 A1 20000531**; DE 59911983 D1 20050602; EP 1049860 A1 20001108; EP 1049860 B1 20050427; JP 2002531747 A 20020924; KR 20010034375 A 20010425; PL 341910 A1 20010507; US 6413054 B1 20020702; WO 0032919 A1 20000608

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