

Title (en)  
Fuel injector with stroke limitation

Title (de)  
Kraftstoffeinspritzdüse mit Hubbegrenzung

Title (fr)  
Injecteur de carburant avec limitation de course

Publication  
**EP 0984159 A3 20030129 (DE)**

Application  
**EP 99117143 A 19990831**

Priority  
DE 19839632 A 19980831

Abstract (en)  
[origin: EP0984159A2] The fuel injection nozzle incorporates a nozzle body (1) with a control needle (4) inside it. The body fits onto a holder (2) containing a longitudinally-movable EM or piezoelectric actuator rod (5) which pushes against an intermediate strut (6). There is a needle lift limiting device (9) which consists of a ring (41) which is engaged by an enlarged head (61) on the intermediate strut. The ring is accommodated in a groove (24) at the end of the holder and limits the movement of the strut in the direction of the nozzle body. There is a coil spring (24) which presses against the enlarged end of the strut and urges it towards the nozzle control needle.

IPC 1-7  
**F02M 61/16; F02M 61/20**

IPC 8 full level  
**F02M 61/16** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP)  
**F02M 61/161** (2013.01); **F02M 61/20** (2013.01)

Citation (search report)  
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Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**DE 19839632 A1 20000302**; DE 59910050 D1 20040902; EP 0984159 A2 20000308; EP 0984159 A3 20030129; EP 0984159 B1 20040728

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