

Title (en)  
Fuel injection nozzles.

Title (de)  
Kraftstoffeinspritzdüse.

Title (fr)  
Buse d'injection de combustible.

Publication  
**EP 0572134 A1 19931201 (EN)**

Application  
**EP 93303598 A 19930510**

Priority  
GB 9211069 A 19920523

Abstract (en)  
A two stage lift injection nozzle includes a nozzle holder (10) to which is secured a nozzle body (15) which accommodates a fuel pressure actuated valve member (18). The valve member is biased into engagement with a seating (23) by a first spring (27) and after a predetermined movement of the valve member away from the seating it engages a spring abutment (34) of a second spring (32). The movement of the valve member away from the seating against the action of both springs is limited by the engagement of the abutment (34) with stop surfaces (39) defined by recesses (36) in the wall of a chamber (12) in the holder and in which the springs are located. <IMAGE>

IPC 1-7  
**F02M 45/08**; **F02M 61/20**

IPC 8 full level  
**F02M 45/08** (2006.01)

CPC (source: EP)  
**F02M 45/083** (2013.01)

Citation (search report)

- [X] DE 4036580 A1 19920521 - SKL MOTOREN SYSTEMTECH [DE]
- [Y] EP 0360170 A1 19900328 - DIESEL KIKI CO [JP]
- [A] GB 835712 A 19600525 - EMMERICH SATZGER

Cited by  
US5553781A; EP0984159A3

Designated contracting state (EPC)  
DE ES FR GB IT

DOCDB simple family (publication)  
**EP 0572134 A1 19931201**; GB 9211069 D0 19920708

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**EP 93303598 A 19930510**; GB 9211069 A 19920523