

Title (en)
Injection nozzle

Title (de)
Einspritzdüse

Title (fr)
Buse d'injection

Publication
EP 1344931 B1 20080611 (EN)

Application
EP 03251544 A 20030313

Priority
GB 0205966 A 20020314

Abstract (en)
[origin: EP1344931A2] An injection nozzle for use in delivering fuel to a combustion space includes a valve member in the form of a valve needle (18) which is slidable within a bore (11) and engageable with a seating (12A) to control fuel flow through an outlet opening (25A, 25B). The valve needle (18) includes first and second surfaces (27, 29) of substantially conical or frusto-conical form, and a circumferential groove (26) formed in the valve needle (18) intermediate the first and second surfaces (27, 29). The second surface (29) of the valve needle (18) is disposed eccentrically relative to the first surface (27), thereby providing the effect of a bushy spray upon relatively low amounts of valve needle lift away from the seating, whilst maintaining good spray symmetry throughout the remainder of the range of travel of the valve needle (18). <IMAGE>

IPC 8 full level
F02M 61/18 (2006.01); **F02M 61/06** (2006.01)

CPC (source: EP)
F02M 61/18 (2013.01); **F02M 61/1873** (2013.01); **F02M 61/1893** (2013.01)

Cited by
WO2005059353A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1344931 A2 20030917; **EP 1344931 A3 20040428**; **EP 1344931 B1 20080611**; AT E398237 T1 20080715; DE 60321500 D1 20080724; GB 0205966 D0 20020424

DOCDB simple family (application)
EP 03251544 A 20030313; AT 03251544 T 20030313; DE 60321500 T 20030313; GB 0205966 A 20020314