

Title (en)
FIXING DEVICE

Title (de)
BEFESTIGUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE FIXATION

Publication
EP 1440235 B1 20080213 (DE)

Application
EP 02774435 A 20021001

Priority
• DE 0203715 W 20021001
• DE 10152421 A 20011024

Abstract (en)
[origin: WO03038267A1] A fixing device for reciprocally fixing a fuel injection valve to a cylinder head of an internal combustion engine and for fixing the fuel injection valve to a fuel distributor line, comprising two spring tongue elements (2) which can be inserted into a retaining groove of the fuel injection valve or the fuel distributor line. The center distance (d1) of the spring tongue elements (2) is less than the largest diameter (d2) of the opening surface surrounded thereby and the spring tongue elements (2) are resilient in a radial direction in relation to an axis of the fuel injection valve. At least two spring elements (4) are formed in an axial direction in relation to the spring tongue elements and are resilient with respect to traction and pressure. Said spring elements can be detachably linked to the opposite-lying fuel injection valve or fuel distributor line in an axial non-positive fit by means of a locking connection.

IPC 8 full level
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CPC (source: EP US)
F02M 61/14 (2013.01 - EP US); **F02M 61/168** (2013.01 - EP US); **F02M 69/465** (2013.01 - EP US); **F02M 2200/16** (2013.01 - EP US); **F02M 2200/8023** (2013.01 - EP US); **F02M 2200/856** (2013.01 - EP US)

Citation (examination)
• DE 19735665 A1 19990107 - BOSCH GMBH ROBERT [DE]
• DE 19949381 A1 20000420 - FORD MOTOR CO [US]

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

DOCDB simple family (publication)
WO 03038267 A1 20030508; AT E386207 T1 20080315; CN 1312394 C 20070425; CN 1478176 A 20040225; DE 10152421 A1 20030618; DE 50211699 D1 20080327; EP 1440235 A1 20040728; EP 1440235 B1 20080213; JP 2005507052 A 20050310; JP 4280632 B2 20090617; US 2005066941 A1 20050331; US 7063075 B2 20060620

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