

Title (en)
Fuel injection pump for internal combustion engines.

Title (de)
Kraftstoffeinspritzpumpe für Brennkraftmaschinen.

Title (fr)
Pompe d'injection de carburant pour moteurs à combustion interne.

Publication
EP 0153919 A1 19850904 (DE)

Application
EP 85890041 A 19850215

Priority
AT 49184 A 19840215

Abstract (en)
1. Fuel injection pump for internal combustion engines with a cylinder barrel (2) containing a plunger (3), said barrel being located in the pump body (1), comprising at least one return flow bore (4), being controlled by the plunger (3), and being surrounded by a rotatable deflector ring (8, 28, 30) in the area of the return flow bore (4), said ring being pressed by a spring (12, 31, 32) acting in axial direction against a shoulder (29) of the cylinder barrel located above the return flow bore (4) in pumping direction and enclosing an annular space (9) with an approximately cylindrical wall element, said annular space being connected with a return flow space (11) via at least one flow bore (10) of the deflector ring, especially of that type, where the end of delivery is determined by at least one sloping leading edge of the plunger (3), which opens the return flow bore (4), characterised in that the spring (12, 31, 32) is compressible in the direction of the axis of the cylinder barrel and is supported by an intermediate sleeve (14) being tightly connected with the cylinder barrel (2) and the pump body (1), being connected with the cylinder barrel (2), in a manner not to be axially shiftable relative thereto and ending below the deflector ring (8, 28, 30), wherein the intermediate sleeve (14) and the deflector ring (8, 28, 30) are removable together with the cylinder barrel (2) from the pump body (1).

Abstract (de)
Eine Kraftstoffeinspritzpumpe für Brennkraftmaschinen weist eine einen Pumpenkolben (3) aufnehmende Zylinderbüchse (2) mit mindestens einer vom Pumpenkolben (3) gesteuerten Rückströmbohrung (4) auf, in deren Bereich die Zylinderbüchse (2) von einem verdrehbaren Prallschutzring (8) umgeben ist, welcher durch eine in axialer Richtung zusammendrückbare Feder (12) gegen eine Schulter der Zylinderbüchse (2) gedrückt ist und mit einem zylindrischen Wandteil einen Ringraum (9) umschließt, der über wenigstens eine Durchflutungsbohrung (10) mit einem Rückströmräum (11) verbunden ist. Die Feder (12) ist gegen eine zwischen Zylinderbüchse (2) und Pumpengehäuse (1) dicht und unverschiebbar eingesetzte Zwischenhülse (14) abgestützt.

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IPC 8 full level
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CPC (source: EP)
F02M 55/001 (2013.01); **F02M 59/44** (2013.01); **F02M 59/442** (2013.01)

Citation (search report)
• [YD] DE 3136749 A1 19830331 - BOSCH GMBH ROBERT [DE]
• [Y] DE 2442010 A1 19750327 - SIGMA DIESEL
• [AD] EP 0074650 A1 19830323 - BOSCH GMBH ROBERT [DE]
• [A] AT 315578 B 19740527 - BOSCH GMBH ROBERT [DE]
• [AP] GB 2129883 A 19840523 - LUCAS IND PLC
• [A] AT 307808 B 19730612 - FRIEDMANN & MAIER AG
• [A] DE 1910169 A1 19691002 - BRYCE BERGER LTD
• [A] FR 2118378 A5 19720728 - SIGMA

Cited by
EP0214115B1

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