

Title (en)

SHELL SEALING FOR SEPARATING A CYLINDRICAL BODY FROM A BORE CONTAINING THE SAME

Publication

**EP 0152763 B1 19870909 (DE)**

Application

**EP 85100419 A 19850117**

Priority

US 57323684 A 19840123

Abstract (en)

[origin: US4528959A] A seal for an internal combustion engine having a fuel injection nozzle positioned within a stepped bore formed in a cylinder head. The fuel injection nozzle contains an exterior stepped configuration with a shoulder formed between its steps. The seal includes a ring circumferentially positioned around and contacting the smaller diameter portion of the fuel injection nozzle. The ring has a flat first end which abuts the shoulder of the fuel injection nozzle and a tapered second end which contacts the smaller diameter portion of the stepped bore. The taper is formed on an exterior surface of the ring and has a maximum outside diameter which is slightly larger than the smaller diameter portion of the stepped bore. The seal also contains an outwardly projecting bulge formed between the first and second ends. The bulge permits the first and second ends to move axially relative to one another as the fuel injection nozzle is axially adjusted within the cylinder head and during normal engine operation. The seal serves to prevent combustion gases, which are generated in the cylinder, from flowing into the larger diameter portion of the stepped bore.

IPC 1-7

**F02M 61/14; F16J 15/02**

IPC 8 full level

**F02F 11/00** (2006.01); **F02M 61/14** (2006.01); **F02M 61/16** (2006.01); **F16J 15/02** (2006.01); **F16J 15/08** (2006.01)

CPC (source: EP US)

**F02M 61/14** (2013.01 - EP US); **F02M 61/167** (2013.01 - EP US); **F02M 2200/858** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI SE

DOCDB simple family (publication)

**US 4528959 A 19850716**; AT E29557 T1 19870915; AU 3723384 A 19850801; AU 562899 B2 19870618; BR 8500236 A 19850827; CA 1221886 A 19870519; DE 3560602 D1 19871015; EP 0152763 A1 19850828; EP 0152763 B1 19870909; ES 292800 U 19860616; ES 292800 Y 19870301; JP S60159365 A 19850820; ZA 85495 B 19860924

DOCDB simple family (application)

**US 57323684 A 19840123**; AT 85100419 T 19850117; AU 3723384 A 19841224; BR 8500236 A 19850118; CA 468260 A 19841120; DE 3560602 T 19850117; EP 85100419 A 19850117; ES 292800 U 19850122; JP 1072885 A 19850123; ZA 85495 A 19850122