

Title (en)
INJECTION PUMP FOR INTERNAL-COMBUSTION ENGINE

Publication
EP 0020249 B1 19840822 (FR)

Application
EP 80400720 A 19800522

Priority
• FR 7913486 A 19790528
• FR 8011046 A 19800516

Abstract (en)
[origin: ES8103592A1] A constant-stroke, variable by-pass, plunger-type, jerk pump for injecting fuel-oil into a working cylinder of an internal combustion engine, wherein the plunger comprises a passage-way opening at one end thereof into the working chamber of said plunger and adapted to communicate at its other end with at least one duct connected to the fuel supply and opening into the pump cylinder housing said plunger to temporarily cut off the fuel discharged from said chamber to the fuel injector during the upward stroke of the plunger towards its top dead center, the first fuel discharge phase enabling the fuel to be pre-injected into the engine cylinder whereas the second fuel discharge phase provides for the main injection of fuel thereinto.

IPC 1-7
F02M 45/06; **F02M 59/22**

IPC 8 full level
F02M 45/06 (2006.01); **F02M 59/22** (2006.01); **F02M 59/26** (2006.01)

CPC (source: EP KR US)
F02M 45/06 (2013.01 - KR); **F02M 45/066** (2013.01 - EP US); **F02M 59/22** (2013.01 - EP US)

Cited by
EP0363088A1; FR2612569A1; FR2582355A1; FR2630166A1; EP0063523A1; FR2504203A1; US4705006A; FR2649758A1; GB2235955A; GB2235955B

Designated contracting state (EPC)
BE CH DE GB IT LI NL SE

DOCDB simple family (publication)
EP 0020249 A1 19801210; **EP 0020249 B1 19840822**; AU 544751 B2 19850613; AU 5882880 A 19801204; CS 243455 B2 19860612; CS 375080 A2 19850815; DD 151205 A5 19811008; DE 3069004 D1 19840927; ES 491946 A0 19810316; ES 8103592 A1 19810316; FR 2482669 A2 19811120; FR 2482669 B2 19840706; JP H0214542 B2 19900409; JP S55161958 A 19801216; KR 830003002 A 19830531; KR 840001289 B1 19840907; PL 136603 B1 19860331; PL 224562 A1 19810227; US 4426198 A 19840117; YU 142580 A 19830121; YU 42508 B 19881031

DOCDB simple family (application)
EP 80400720 A 19800522; AU 5882880 A 19800528; CS 375080 A 19800528; DD 22142480 A 19800528; DE 3069004 T 19800522; ES 491946 A 19800528; FR 8011046 A 19800516; JP 7128880 A 19800528; KR 800002101 A 19800528; PL 22456280 A 19800528; US 47759483 A 19830325; YU 142580 A 19800527