

Title (en)  
DIRECT INJECTION SYSTEM FOR INTERNAL COMBUSTION ENGINES AND METHOD THEREOF

Title (de)  
DIREKTEINSPRITZSYSTEM FÜR BRENNKRAFTMASCHINEN UND VERFAHREN DAFÜR

Title (fr)  
SYSTEME D'INJECTION DIRECTE POUR MOTEURS A COMBUSTION INTERNE ET PROCEDE CORRESPONDANT

Publication  
**EP 1218634 A1 20020703 (EN)**

Application  
**EP 00931488 A 20000613**

Priority  
• IB 0000776 W 20000613  
• IT TO990507 A 19990611  
• IT TO991088 A 19991210

Abstract (en)  
[origin: WO0109505A1] A direct injection system for internal combustion engines, which system comprises means (19) for pumping fuel at a first pressure (P0) from a tank (18), electric driven injection means (11) directly associated to relevant combustion chambers (17), means (13) for applying a second pressure (P1) to the fuel supplied to said injection means (11), said second pressure (P1) being much higher than said first pressure (P0) and substantially prevailing with respect to a third pressure (P2) available in the combustion chamber (17), said means (13) for applying said second pressure (P1) to the fuel being located upstream the injection means (11). According to the present invention, means (12) are provided for taking the third pressure (P2) available in the combustion chamber (17) and transmit it to means (21) for amplifying the third pressure (P2), which are comprised in the means (13) for applying the second pressure (P1), in order to generate said second pressure (P1).

IPC 1-7  
**F02M 49/02**; **F02M 59/02**

IPC 8 full level  
**F02M 49/02** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)  
**F02M 49/02** (2013.01); **F02M 2200/40** (2013.01)

Citation (search report)  
See references of WO 0109505A1

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

DOCDB simple family (publication)  
**WO 0109505 A1 20010208**; AU 4943600 A 20010219; EP 1218634 A1 20020703

DOCDB simple family (application)  
**IB 0000776 W 20000613**; AU 4943600 A 20000613; EP 00931488 A 20000613