

Title (en)  
INTERNAL COMBUSTION ENGINE

Title (de)  
BRENNKRAFTMASCHINE

Title (fr)  
MOTEUR A COMBUSTION INTERNE

Publication  
**EP 1716317 A1 20061102 (DE)**

Application  
**EP 05716735 A 20050218**

Priority  
• EP 2005050718 W 20050218  
• AT 2702004 A 20040219

Abstract (en)  
[origin: WO2005080758A1] The invention concerns an internal combustion engine in which, instead of conventional valves, a rotary slide valve (1) for opening and closing at least one gas exchange opening is assigned to each cylinder (33, 34). The rotary slide valve (1) is provided in the form of a double-walled tube with two channels (40, 44), which are separated from one another, for leading away exhaust gases and for supplying air or a fuel vapor mixture, whereby the channels (40, 44) are provided with radial channels (41, 42, 38, 45, 46) that directly lead to openings on the outer lateral surface of the rotary slide valve (1) and, depending on the rotational position, connect one or more of the cylinders (33, 34) to the intake or exhaust channels (10, 11). In order to obtain a reliable sealing and to prevent the rotary slide valve (1) from bending, the invention provides that, on the side opposite a channel (36) of a cylinder (33, 34), a pressure plate (6) is retained in a manner that enables it to be displaced in an axial direction of the cylinder (33, 34) inside a cylindrical space (50) of the cylinder head (2). The end of the cylindrical space (50) facing away from the rotary slide valve (1) is, via a pressure channel (15, 17, 20) leading through the cylinder head (13), connected to the area of the cylinder (33, 34) opposite the pressure plate (6), this area adjoining the cylinder head (13).

IPC 8 full level  
**F01L 7/02** (2006.01); **F01L 7/00** (2006.01); **F01L 7/16** (2006.01)

CPC (source: EP US)  
**F01L 7/00** (2013.01 - EP US); **F01L 7/02** (2013.01 - EP US); **F01L 7/024** (2013.01 - EP US); **F01L 7/025** (2013.01 - EP US);  
**F01L 7/16** (2013.01 - EP US)

Citation (search report)  
See references of WO 2005080758A1

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

DOCDB simple family (publication)  
**WO 2005080758 A1 20050901**; AT 414152 B 20060915; AT A2702004 A 20051215; CN 1942658 A 20070404; EP 1716317 A1 20061102;  
US 2008168962 A1 20080717

DOCDB simple family (application)  
**EP 2005050718 W 20050218**; AT 2702004 A 20040219; CN 200580011152 A 20050218; EP 05716735 A 20050218; US 58982905 A 20050218