

Title (en)  
Piston for internal combustion engine

Title (de)  
Kolben für Brennkraftmaschinen

Title (fr)  
Piston pour moteur à combustion

Publication  
**EP 0705968 A1 19960410 (DE)**

Application  
**EP 95111387 A 19950720**

Priority  
DE 4434994 A 19940930

Abstract (en)  
The piston has circular cylinder bushes, with a piston floor and a piston shaft (8) closed in a peripheral direction at least over a part of its axial length. The piston is forged and during operation of the engine is cooled by spray oil. One of the ribs (11) between the bolt eye (13) and the shaft wall is outwardly displaced relatively to the opposing rib (10) engaging on the same bolt eye. The two ribs of the other bolt eye have the distance from a central plane (E) vertical to the bolt axis.

Abstract (de)  
Der erfindungsgemäße Kolben für Brennkraftmaschinen weist zwischen Kolbenschaft und den nach innen versetzten Bolzenaugen (13) jeweils zwei Stege (10,11) auf. Um ausreichende Festigkeiten und Steifigkeiten einerseits und eine verschleißarme Formbarkeit und darüber hinaus eine gute Zugänglichkeit für die Spritzölkühlung zu erzielen ist einer der Stege (11) zwischen Bolzenauge (13) und Schaftwand nach außen versetzt.  
<IMAGE>

IPC 1-7  
**F02F 3/22**; F02F 3/00

IPC 8 full level  
**F01P 3/08** (2006.01); **F02F 3/00** (2006.01); **F02F 3/22** (2006.01)

CPC (source: EP US)  
**F02F 3/0076** (2013.01 - EP US); **F02F 3/22** (2013.01 - EP US); **F02F 2200/04** (2013.01 - EP US)

Citation (applicant)  
DE 4109160 C2 19930617

Citation (search report)  
• [A] EP 0385390 A1 19900905 - GILARDONI VITTORIO SPA [IT]  
• [DA] DE 4109160 A1 19920924 - ALCAN GMBH [DE], et al  
• [A] FR 2458685 A1 19810102 - ASS ENG ITALIA [IT]  
• [A] DE 4338571 A1 19940519 - AISIN SEIKI [JP]

Cited by  
EP0913566A3; DE19810883A1

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**EP 0705968 A1 19960410**; **EP 0705968 B1 19980408**; DE 4434994 A1 19960411; DE 4434994 C2 19980219; DE 59501832 D1 19980514; JP H08177620 A 19960712; US 5562074 A 19961008

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