

Title (en)  
MULTI-PIECE PISTON

Title (de)  
GEBAUTER KOLBEN

Title (fr)  
PISTON EN PLUSIEURS PARTIES

Publication  
**EP 1161624 A1 20011212 (DE)**

Application  
**EP 00907440 A 20000125**

Priority  
• DE 0000199 W 20000125  
• DE 19910582 A 19990310

Abstract (en)  
[origin: WO0053913A1] The invention relates to a multi-piece piston, comprising a steel upper part and a lower part which is screwed to said upper part and which contains the hubs. The aim of the invention is to improve the strength of the lower part and its resistance to material defects and to reduce production costs. To this end, the lower part consists of a precipitation-hardened ferrite-perlite steel, preferably according to DIN EN 10267 and with added titanium and the hubs of the lower part are preferably not reinforced with bushings.

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

IPC 8 full level  
**F02F 3/00** (2006.01); **F02F 3/22** (2006.01); **F16J 1/01** (2006.01); **F16J 1/16** (2006.01)

CPC (source: EP KR US)  
**F02F 3/00** (2013.01 - KR); **F02F 3/0023** (2013.01 - EP US); **F02F 3/003** (2013.01 - EP US); **F02F 3/22** (2013.01 - EP US); **F02F 2200/04** (2013.01 - EP US); **F05C 2201/021** (2013.01 - EP US); **F05C 2201/0448** (2013.01 - EP US)

Citation (search report)  
See references of WO 0053913A1

Cited by  
DE102007021101A1

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 0053913 A1 20000914**; BR 0008833 A 20011218; BR 0008833 B1 20090113; DE 10080565 D2 20020307; DE 19910582 A1 20000928; DE 20007415 U1 20000928; DE 50002358 D1 20030703; EP 1161624 A1 20011212; EP 1161624 B1 20030528; JP 2002539356 A 20021119; KR 100573465 B1 20060424; KR 20020004961 A 20020116; US 6622613 B1 20030923

DOCDB simple family (application)  
**DE 0000199 W 20000125**; BR 0008833 A 20000125; DE 10080565 T 20000125; DE 19910582 A 19990310; DE 20007415 U 20000125; DE 50002358 T 20000125; EP 00907440 A 20000125; JP 2000604116 A 20000125; KR 20017011510 A 20010910; US 91497301 A 20010906