

Title (en)

TWO-PIECE PISTON FOR AN INTERNAL COMBUSTION ENGINE

Title (de)

ZWEITEILIGER KOLBEN FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)

PISTON EN DEUX PARTIES POUR MOTEUR À COMBUSTION INTERNE

Publication

EP 2229521 A2 20100922 (DE)

Application

EP 08861287 A 20081201

Priority

- DE 2008001997 W 20081201
- DE 102007060472 A 20071214

Abstract (en)

[origin: US2009151556A1] A two-part piston for an internal combustion engine has an upper part that has a pin having an outside thread on the underside of its piston crown, and has a lower part that has a crown part, onto which an expansion sleeve that can stretch elastically in the axial direction is formed, radially on the inside. A pin is introduced into the sleeve in order to screw the upper part to the lower part. The expansion sleeve is stretched in the axial direction. In order to improve its strength, the material of the expansion sleeve has a higher stretching limit as compared with the rest of the piston material. The increase in the stretching limit is achieved by permanent stretching of the expansion sleeve in the axial direction, by approximately 1% of its length.

IPC 8 full level

F02F 3/00 (2006.01); **F02F 3/22** (2006.01)

CPC (source: EP US)

F02F 3/0023 (2013.01 - EP US); **F02F 3/22** (2013.01 - EP US); **F16J 1/005** (2013.01 - EP US); **F05C 2251/02** (2013.01 - EP US)

Citation (search report)

See references of WO 2009076928A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

DE 102007060472 A1 20090618; CN 101896711 A 20101124; CN 101896711 B 20120808; EP 2229521 A2 20100922; JP 2011506816 A 20110303; KR 101531436 B1 20150624; KR 20100098664 A 20100908; US 2009151556 A1 20090618; US 8113105 B2 20120214; WO 2009076928 A2 20090625; WO 2009076928 A3 20091029

DOCDB simple family (application)

DE 102007060472 A 20071214; CN 200880120726 A 20081201; DE 2008001997 W 20081201; EP 08861287 A 20081201; JP 2010537247 A 20081201; KR 20107014282 A 20081201; US 31596908 A 20081208