

Title (en)

PISTON FOR A COMBUSTION ENGINE AND CASTING METHOD FOR THE PRODUCTION THEREOF

Title (de)

KOLBEN FÜR EINEN VERBRENNUNGSMOTOR UND GIESSVERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

PISTON POUR UN MOTEUR A COMBUSTION INTERNE ET PROCEDE DE COULEE POUR SA PRODUCTION

Publication

EP 1636473 B2 20160316 (DE)

Application

EP 04738605 A 20040607

Priority

- DE 2004001151 W 20040607
- DE 10325917 A 20030607

Abstract (en)

[origin: WO2004111419A1] The invention relates to a piston (1), which is comprised of an approximately circular cylindrical upper area (5) and of a lower area (6) having two hubs (7), which are set back toward the piston central axis (8) so that, in the upper area (5), recesses (12, 12') can be made, which are open toward the lower area (6), in the vicinity of the hubs (7). In order to make relief cuts (13, 13') in the area between the hubs (7) and the upper area (5), a salt mold part (15) is placed on the respective window insert (14). The salt mold part (15) serves to produce the recesses (12, 12') as well as the relief cuts (13, 13') when casting the piston (1) and is washed out after the piston (1) has been cast.

IPC 8 full level

F02F 3/00 (2006.01); **B22D 15/02** (2006.01); **B22D 19/00** (2006.01)

CPC (source: EP KR US)

B22C 9/105 (2013.01 - EP KR US); **B22D 15/02** (2013.01 - EP KR US); **B22D 19/0027** (2013.01 - EP KR US); **F02F 3/00** (2013.01 - EP KR US); **Y10T 29/49249** (2015.01 - EP US); **Y10T 29/49261** (2015.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 2004111419 A1 20041223; **WO 2004111419 B1 20050407**; BR PI0411089 A 20060725; BR PI0411089 B1 20150728; DE 10325917 A1 20050331; EP 1636473 A1 20060322; EP 1636473 B1 20121219; EP 1636473 B2 20160316; JP 2006527325 A 20061130; JP 4741479 B2 20110803; KR 101119174 B1 20120221; KR 20060035615 A 20060426; US 2006118076 A1 20060608; US 7213562 B2 20070508

DOCDB simple family (application)

DE 2004001151 W 20040607; BR PI0411089 A 20040607; DE 10325917 A 20030607; EP 04738605 A 20040607; JP 2006515667 A 20040607; KR 20057023488 A 20040607; US 55988404 A 20040607