

Title (en)  
SQUEEZE CASTING OF PISTONS

Publication  
**EP 0115150 B1 19870325 (EN)**

Application  
**EP 83307704 A 19831219**

Priority  
GB 8237089 A 19821231

Abstract (en)  
[origin: EP0115150A1] An insert (14), such as a piston ring groove reinforcement insert, is incorporated into the piston by squeeze casting the piston crown-down with the insert (14) being located towards the base of the lower die member (10). This avoids the problems of insert warping and cracking which can arise as a result of differential solidification and contraction during solidification in crown-up squeeze casting. Crown-down squeeze casting also ensures that the skirt (17) of the piston has fully developed squeeze cast properties by avoiding premature solidification of the skirt before squeezing, which can occur in crown-up squeeze casting.

IPC 1-7  
**F02F 3/06**; B22D 18/00; B22D 18/02; B22D 19/02; F16J 9/00; B22D 15/02

IPC 8 full level  
**B22D 18/02** (2006.01); **B22D 19/08** (2006.01); **F02F 3/06** (2006.01)

CPC (source: EP)  
**F02F 3/06** (2013.01); **F02F 2200/04** (2013.01); **F05C 2201/021** (2013.01)

Citation (examination)  
• GB 2033805 A 19800529 - HONDA MOTOR CO LTD  
• EP 0080562 A1 19830608 - TOYOTA MOTOR CO LTD [JP], et al

Designated contracting state (EPC)  
DE FR IT SE

DOCDB simple family (publication)  
**EP 0115150 A1 19840808**; **EP 0115150 B1 19870325**; CA 1229215 A 19871117; DE 3370512 D1 19870430; GB 2133330 A 19840725; GB 2133330 B 19860820; GB 8334571 D0 19840201; JP S59183964 A 19841019

DOCDB simple family (application)  
**EP 83307704 A 19831219**; CA 444375 A 19831229; DE 3370512 T 19831219; GB 8334571 A 19831229; JP 24496183 A 19831227