

Title (en)  
SEALING FOR REFRACTORY COMPONENTS CONTAINING METALLIC MELT

Publication  
**EP 0369147 B1 19930922 (DE)**

Application  
**EP 89118291 A 19891003**

Priority  
DE 3838903 A 19881117

Abstract (en)  
[origin: EP0369147A2] A sealing for interlocking refractory components (1 and 2) containing a metallic melt is improved by the fact that at least one radially acting ceramic spring washer (4) for sealing the cross-section of the clearance fit (3) between the components (1 and 2) is arranged at least on one component in an annular groove (5). <IMAGE> <IMAGE> <IMAGE>

IPC 1-7  
**B22D 41/08**

IPC 8 full level  
**B22D 41/18** (2006.01); **B22D 41/08** (2006.01); **B22D 41/34** (2006.01); **B22D 41/50** (2006.01); **B22D 41/56** (2006.01)

CPC (source: EP KR US)  
**B22D 41/08** (2013.01 - EP KR US); **B22D 41/18** (2013.01 - KR); **B22D 41/502** (2013.01 - EP US)

Cited by  
EP0469268A3; EP0545172A1; EP0794025A3

Designated contracting state (EPC)  
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0369147 A2 19900523; EP 0369147 A3 19911204; EP 0369147 B1 19930922**; AT E94790 T1 19931015; BR 8905800 A 19900612; CA 2003093 A1 19900517; CN 1043100 A 19900620; DE 3838903 A1 19900523; DE 58905680 D1 19931028; ES 2046425 T3 19940201; JP H02160166 A 19900620; KR 900007519 A 19900601; KR 970005375 B1 19970415; US 5106106 A 19920421; ZA 897932 B 19900725

DOCDB simple family (application)  
**EP 89118291 A 19891003**; AT 89118291 T 19891003; BR 8905800 A 19891116; CA 2003093 A 19891116; CN 89108560 A 19891115; DE 3838903 A 19881117; DE 58905680 T 19891003; ES 89118291 T 19891003; JP 29631089 A 19891116; KR 890015391 A 19891025; US 63339990 A 19901221; ZA 897932 A 19891019