

Title (en)  
SEMI-SOLID METAL FORMING PROCESS

Title (de)  
METALLFORMUNGSVERFAHREN MIT HALBFESTEM MATERIAL

Title (fr)  
PROCEDE POUR FORMER UN METAL SEMI-SOLIDE

Publication  
**EP 1011897 B1 20030917 (EN)**

Application  
**EP 98901901 A 19980202**

Priority  
• CA 9800062 W 19980202  
• CA 2196479 A 19970131  
• CA 2227828 A 19980123

Abstract (en)  
[origin: WO9833610A1] A semi-solid metal forming process using a cast billet and having the following steps: 1) heating the cast billet to a temperature above its recrystallization temperature and below its solidus temperature; 2) extruding the cast billet into an extruded column; 3) cutting the extruded column into at least one billet; 4) heating the billet from step 3 to a semi-solid state; and 5) squeezing the billet from step 4 into a cavity in a metal forming die set to form a part.

IPC 1-7  
**B22D 17/00**; **B21C 23/00**

IPC 8 full level  
**B21C 23/00** (2006.01); **B21J 1/06** (2006.01); **B21J 5/00** (2006.01); **B22D 17/00** (2006.01); **B22D 18/02** (2006.01); **C22C 1/00** (2006.01)

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**B21C 23/00** (2013.01); **B21J 5/00** (2013.01); **B21J 5/004** (2013.01); **B22D 18/02** (2013.01); **C22C 1/12** (2023.01)

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**WO 9833610 A1 19980806**; AU 5850098 A 19980825; CA 2227828 A1 19980731; CA 2227828 C 20021112; DE 69818282 D1 20031023; EP 1011897 A1 20000628; EP 1011897 B1 20030917; JP 2001509085 A 20010710

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