

Title (en)

Pressure controlled fluid pressure extrusion method

Title (de)

Verfahren zum druckgesteuerten, hydraulischen Druckstrangpressen

Title (fr)

Procédé d'extrusion par pression hydraulique à pression contrôlée

Publication

**EP 1162014 A3 20020724 (EN)**

Application

**EP 01304835 A 20010601**

Priority

JP 2000173006 A 20000609

Abstract (en)

[origin: EP1162014A2] The lower part of a material blank to be molded forms a lower seal (9) with a die (2). A punch (3) applying a molding force to the material forms an upper seal (7) with the perimeter of the die. The space between the upper and lower seals (9) forms a pressure chamber (6) that is filled with a fluid. As the punch descends into the die, the fluid is pressurized. The lower seal (9) is a complete seal to prevent leakage of fluid into the die. The upper seal is given a clearance with the die that permits controlled leakage of fluid therepast at a rate that limits the maximum pressure in the pressure chamber while permitting the development of an adequate pressure on the material being molded. <IMAGE>

IPC 1-7

**B21J 5/12**; **B21J 5/04**; **B21C 23/00**; **B21C 23/10**; **B21K 1/12**; **B21K 1/30**

IPC 8 full level

**B21J 5/06** (2006.01); **B21C 23/00** (2006.01); **B21C 23/10** (2006.01); **B21J 3/00** (2006.01); **B21J 5/04** (2006.01); **B21J 5/12** (2006.01); **B21K 1/12** (2006.01); **B21K 1/30** (2006.01)

CPC (source: EP US)

**B21C 23/007** (2013.01 - EP US); **B21C 23/10** (2013.01 - EP US); **B21J 5/04** (2013.01 - EP US); **B21J 5/12** (2013.01 - EP US); **B21K 1/066** (2013.01 - EP US); **B21K 1/12** (2013.01 - EP US); **B21K 1/30** (2013.01 - EP US)

Citation (search report)

- [X] US 3382691 A 19680514 - DEREK GREEN
- [X] GB 1215452 A 19701209 - ATOMIC ENERGY AUTHORITY UK [GB]
- [A] US 3983730 A 19761005 - FIORENTINO ROBERT J
- [A] US 3765222 A 19731016 - LUNDBACK B

Cited by

TWI722949B; TWI622490B

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**EP 1162014 A2 20011212**; **EP 1162014 A3 20020724**; **EP 1162014 B1 20050323**; CA 2343685 A1 20011209; CA 2343685 C 20060704; DE 60109519 D1 20050428; DE 60109519 T2 20060413; JP 2001347336 A 20011218; JP 3707768 B2 20051019; US 2001049955 A1 20011213

DOCDB simple family (application)

**EP 01304835 A 20010601**; CA 2343685 A 20010411; DE 60109519 T 20010601; JP 2000173006 A 20000609; US 82769901 A 20010406