

Title (en)

Process for preparing near net shaped workpieces from light metal alloys that are difficult to work

Title (de)

Verfahren zur endkonturnahen Fertigung von Bauteilen bzw. Halbzeugen aus schwer zerspanbaren Leichtmetalllegierungen

Title (fr)

Procédé de fabrication d'ébauches de forme quasi définitive à partir d'alliages légers difficilement usinables

Publication

EP 1281461 B1 20040901 (DE)

Application

EP 01127413 A 20011123

Priority

DE 10135485 A 20010720

Abstract (en)

[origin: EP1281461A1] Production of components and semi-finished products comprises: preparing a powder material made from light metal and alloying components, especially wear-resistant carriers; isostatically pressing into a molded body; and extruding close to the sintering temperature of the light metal. Preferred Features: The light metal is aluminum. The alloying components comprise 10-30 wt.% silicon, 0-3 wt.% magnesium, 0-5 wt.% copper, 0-7 wt.% zinc, and 0-7 wt.% iron. The wear-resistant carriers are selected from silicon and/or hard material particle additives, especially oxides, carbides and silicates in an amount of 0-30 wt.%.

IPC 1-7

B22F 3/20; **C22C 1/04**

IPC 8 full level

B22F 3/20 (2006.01); **C22C 1/04** (2006.01); **B22F 3/15** (2006.01)

CPC (source: EP KR US)

B22F 3/20 (2013.01 - EP KR US); **C22C 1/0416** (2013.01 - EP US); **B22F 2003/206** (2013.01 - EP US); **B22F 2005/001** (2013.01 - EP US); **B22F 2998/00** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US); **B22F 2999/00** (2013.01 - EP US)

C-Set (source: EP KR US)

EP US

1. **B22F 2998/00** + **B22F 7/06**
2. **B22F 2998/00** + **C22C 32/00**
3. **B22F 2998/10** + **B22F 3/15** + **B22F 3/20**
4. **B22F 2998/10** + **B22F 3/04** + **B22F 3/20**
5. **B22F 2999/00** + **B22F 1/00** + **C22C 32/00** + **C22C 47/14**
6. **B22F 2998/10** + **B22F 1/00** + **B22F 3/20**

KR

1. **B22F 2998/10** + **B22F 1/00** + **B22F 3/20**
2. **B22F 2999/00** + **B22F 1/00** + **C22C 32/00** + **C22C 47/14**

Cited by

CN105603271A; DE102006031366C5; EP2123377A1

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DOCDB simple family (publication)

EP 1281461 A1 20030205; **EP 1281461 B1 20040901**; AT E275015 T1 20040915; AT E280647 T1 20041115; BR 0211267 A 20040803; CA 2438397 A1 20030213; DE 10135485 A1 20030206; DE 10293319 D2 20040701; DE 50103474 D1 20041007; DE 50201420 D1 20041202; EP 1412113 A2 20040428; EP 1412113 B1 20041027; ES 2227044 T3 20050401; ES 2231721 T3 20050516; HU P0401206 A2 20041028; JP 2004536232 A 20041202; KR 20040030054 A 20040408; US 2004208772 A1 20041021; WO 03011501 A2 20030213; WO 03011501 A3 20030501

DOCDB simple family (application)

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