

Title (en)

Method and apparatus for shaping semisolid metals

Title (de)

Verfahren und Vorrichtung zum Formen halbfester Metalle

Title (fr)

Procédé et dispositif pour mettre des métaux semi-solides en forme

Publication

EP 1331279 A3 20040102 (EN)

Application

EP 02028272 A 19960529

Priority

- EP 96108499 A 19960529
- JP 13013495 A 19950529
- JP 16089095 A 19950627
- JP 23650195 A 19950914
- JP 24410995 A 19950922
- JP 24411195 A 19950922
- JP 24789795 A 19950926
- JP 24948295 A 19950927
- JP 25276295 A 19950929
- JP 25276895 A 19950929
- JP 25276995 A 19950929
- JP 29076095 A 19951109
- JP 32065095 A 19951208
- JP 33295595 A 19951221
- JP 8784896 A 19960410

Abstract (en)

[origin: EP0745694A1] The improved method and apparatus for the semisolid forming of alloys to enable shaped parts having a fine-grained, spherical thixotropic structures to be produced in a convenient, easy and inexpensive manner without relying upon the conventional mechanical or electromagnetic agitation. In the method, a liquid alloy having crystal nuclei at a temperature not lower than the liquidus temperature or a partially solid, partially liquid alloy having crystal nuclei at a temperature not lower than a molding temperature is fed into an insulated vessel having a heat insulating effect, held in said insulated vessel for a period from 5 seconds to 60 minutes as it is cooled to the molding temperature where a specified fraction liquid is established, thereby crystallizing fine primary crystals in the alloy solution, and the alloy is fed into a forming mold, where it is shaped under pressure.

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C22C 1/00; **B22D 17/00**

IPC 8 full level

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CPC (source: EP)

B22D 17/007 (2013.01); **C22C 1/12** (2023.01)

Citation (search report)

- [A] EP 0392998 A1 19901017 - CROSTI GIOVANNI [IT], et al
- [A] WO 9213662 A1 19920820 - TRANSVALOR SA [FR]
- [A] PATENT ABSTRACTS OF JAPAN vol. 011, no. 078 (M - 570) 10 March 1987 (1987-03-10)
- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 574 (M - 1498) 19 October 1993 (1993-10-19)

Cited by

CN105149869A; CN108015255A

Designated contracting state (EPC)

DE FR GB IT

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