

Title (en)

DEVICE FOR HIGH-DENSITY MOLDING AND METHOD FOR HIGH-DENSITY MOLDING OF MIXED POWDER

Title (de)

VORRICHTUNG FÜR HOCHDICHTER FORMUNG UND VERFAHREN ZUR HOCHDICHTEN FORMUNG VON MISCHPULVER

Title (fr)

DISPOSITIF DE MOULAGE HAUTE DENSITÉ ET PROCÉDÉ DE MOULAGE HAUTE DENSITÉ DE POUDRE MIXTE

Publication

EP 2842663 A4 20160420 (EN)

Application

EP 13780555 A 20130422

Priority

- JP 2012098059 A 20120423
- JP 2013061740 W 20130422

Abstract (en)

[origin: EP2842663A1] A first die is filled with a mixed powder including a lubricant. A first pressure is applied to the mixed powder to form a mixed powder intermediate compressed body having a true density ratio of 85 to 96%, provided that the maximum density of the mixed powder intermediate compressed body that can be molded by applying the first pressure is 100%. The mixed powder intermediate compressed body is heated to the melting point of the lubricant powder. The mixed powder intermediate compressed body is placed in a second die that is pre-heated to the melting point. A second pressure is applied to the mixed powder intermediate compressed body in the second die to form a high-density mixed powder final compressed body.

IPC 8 full level

B22F 3/02 (2006.01); **B22F 1/10** (2022.01); **B30B 11/02** (2006.01); **H01F 1/22** (2006.01); **H01F 41/02** (2006.01); **B22F 1/105** (2022.01)

CPC (source: EP US)

B22F 1/10 (2022.01 - EP US); **B22F 3/02** (2013.01 - EP US); **B22F 3/03** (2013.01 - EP US); **B22F 3/12** (2013.01 - US); **B30B 11/027** (2013.01 - EP US); **C22C 38/00** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 45/00** (2013.01 - EP US); **C22C 45/02** (2013.01 - EP US); **H01F 41/0246** (2013.01 - EP US); **B22F 1/105** (2022.01 - EP US); **B22F 2003/023** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US); **C22C 33/02** (2013.01 - EP US)

Citation (search report)

- [XPI] WO 2012060452 A1 20120510 - AIDA ENG LTD [JP], et al
- [AD] JP 2000087104 K1
- [A] GB 676345 A 19520723 - ISTHMIAN METALS INC
- [A] EP 1231003 A2 20020814 - BOSCH GMBH ROBERT [DE]
- See references of WO 2013161745A1

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CN110899687A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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DOCDB simple family (application)

EP 13780555 A 20130422; CN 201310142199 A 20130422; CN 201320207916 U 20130422; JP 2013061740 W 20130422; JP 2014512545 A 20130422; KR 20147031973 A 20130422; TW 102114233 A 20130422; US 201314396356 A 20130422