

Title (en)

METHOD AND APPARATUS FOR FORMING A LIQUID-FORGED ARTICLE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR FORMUNG EINES FLÜSSIGSCHMIEDEARTIKELS

Title (fr)

PROCÉDÉ ET APPAREIL POUR FORMER UN ARTICLE FORGÉ AU LIQUIDE

Publication

EP 2411173 A4 20140730 (EN)

Application

EP 10756433 A 20100309

Priority

- SG 2010000077 W 20100309
- US 16406009 P 20090327

Abstract (en)

[origin: WO2010110742A1] A method of forming a liquid-forged article. The method comprises introducing a melt into a die cavity; moving a punch relative to the die cavity such that the melt enters at least one high aspect ratio cavity in the punch and air is released via at least one air vent insert in the punch; and exerting a forming pressure on the melt while the melt solidifies in the high aspect ratio cavity.

IPC 8 full level

B22D 18/02 (2006.01); **B22C 9/06** (2006.01); **B22D 17/12** (2006.01); **B22D 17/22** (2006.01); **B22D 18/04** (2006.01); **B22D 19/00** (2006.01)

CPC (source: EP US)

B22C 9/067 (2013.01 - EP US); **B22D 18/02** (2013.01 - EP US)

Citation (search report)

- [XY] WO 2008085136 A1 20080717 - AGENCY SCIENCE TECH & RES [SG], et al
- [Y] US 6298903 B1 20011009 - WYSER JOHANN [CH], et al
- [Y] US 2002079613 A1 20020627 - BENEFIELD JOSEPH A [US]
- See references of WO 2010110742A1

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2010110742 A1 20100930; CN 102438772 A 20120502; CN 102438772 B 20140528; EP 2411173 A1 20120201; EP 2411173 A4 20140730; EP 2411173 B1 20201118; SG 174584 A1 20111028; TW 201039941 A 20101116; TW I613018 B 20180201; US 2012018112 A1 20120126

DOCDB simple family (application)

SG 2010000077 W 20100309; CN 201080019509 A 20100309; EP 10756433 A 20100309; SG 2011069929 A 20100309; TW 99107584 A 20100316; US 201013260717 A 20100309