

Title (en)
Method and device for forming workpieces

Title (de)
Vorrichtung und Verfahren zum Umformen von Werkstücken

Title (fr)
Dispositif et procédé destinés au formage de pièces

Publication
EP 2343138 A1 20110713 (DE)

Application
EP 10000210 A 20100112

Priority
EP 10000210 A 20100112

Abstract (en)
The device has an inner molding tool is arranged coaxial to machine main axis (x) of a main spindle (1.1) that comprises a driver (11). The inner molding tool is axially positioned and/or axially moved relative to axial position of an outer molding tool (8), which is radially positioned or moved radially, during formation of a blank mold, which is formed as a rotationally symmetrical hollow body. The inner molding tool has a spherical, outer contour that has a set of conical, concave, and/or convex transitions. An independent claim is also included for a method for producing workpieces from a blank mold.

Abstract (de)
Eine Vorrichtung zum Bearbeiten einer Vorform (3) weist mindestens ein äußeres Umformwerkzeug (8) auf, das radial positioniert oder radial verfahren werden kann. Ein Innenumformwerkzeug (9) ist koaxial zu der Maschinenhauptachse (x) der Hauptspindel (1.1) angeordnet. Das Innenumformwerkzeug (9) kann relativ zur axialen Position der äußeren Umformwerkzeuge (8) axial verfahren und/oder axial positioniert werden.

IPC 8 full level
B21D 22/16 (2006.01)

CPC (source: EP US)
B21B 17/02 (2013.01 - US); **B21B 17/04** (2013.01 - US); **B21B 17/06** (2013.01 - US); **B21B 17/08** (2013.01 - US); **B21B 23/00** (2013.01 - US); **B21B 37/16** (2013.01 - US); **B21D 22/16** (2013.01 - EP US)

Citation (search report)
• [XA] DE 102007002228 A1 20080731 - BENTELER AUTOMOBILTECHNIK GMBH [DE]
• [XA] GB 2184676 A 19870701 - MAN TECHNOLOGIE GMBH
• [A] US 2003046803 A1 20030313 - KANEKO RYUICHI [JP]

Citation (third parties)
Third party :
EP 2210682 A1 20100728 - LEIFELD METAL SPINNING GMBH [DE]

Cited by
EP3025802A1; US10569321B2

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

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2343138 A1 20110713; **EP 2343138 B1 20150422**; CN 102712023 A 20121003; ES 2543005 T3 20150813; US 10124388 B2 20181113; US 2012285215 A1 20121115; WO 2011085948 A1 20110721; WO 2011085948 A8 20120607

DOCDB simple family (application)
EP 10000210 A 20100112; CN 201180004696 A 20110107; EP 2011000035 W 20110107; ES 10000210 T 20100112; US 201113521298 A 20110107