

Title (en)

MOLDING METHOD BY FORGING AND MOLDING METHOD FOR CASE

Title (de)

FORMVERFAHREN DURCH SCHMIEDEN UND FORMVERFAHREN FÜR GEHÄUSE

Title (fr)

MÉTHODE DE MOULAGE PAR FORGE ET MÉTHODE DE MOULAGE POUR BOÎTIER

Publication

EP 1736255 B1 20101124 (EN)

Application

EP 04728001 A 20040416

Priority

JP 2004005443 W 20040416

Abstract (en)

[origin: EP1736255A1] A material member blanked from metal sheet is subjected to upsetting to form an annular peripheral portion that is thinner than the center part of the material inside the annular portion, and the thicker inside portion is formed into a concavity. The first intermediate product thus formed is drawn to form a cup-shaped case with an internal boss and/or an external boss, and an outside flange. The intermediate product can also be used to make gears and the like.

IPC 8 full level

B21K 21/02 (2006.01); **B21D 22/02** (2006.01); **B21J 5/06** (2006.01); **B21J 5/08** (2006.01); **B21K 1/28** (2006.01); **B21K 1/30** (2006.01); **B21K 1/76** (2006.01); **B21K 21/00** (2006.01)

CPC (source: EP US)

B21J 5/06 (2013.01 - EP US); **B21K 1/28** (2013.01 - EP US); **B21K 1/30** (2013.01 - EP US); **B21K 1/76** (2013.01 - EP US); **B21K 21/00** (2013.01 - EP US); **B21K 21/02** (2013.01 - EP US)

Cited by

CN103143628A; EP2626256A4; EP2136940A4; US9079808B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1736255 A1 20061227; **EP 1736255 A4 20070502**; **EP 1736255 A8 20070620**; **EP 1736255 B1 20101124**; CN 1784278 A 20060607; DE 602004030279 D1 20110105; JP WO2005099929 A1 20070816; US 2007006628 A1 20070111; WO 2005099929 A1 20051027; WO 2005099929 A8 20070412

DOCDB simple family (application)

EP 04728001 A 20040416; CN 200480001690 A 20040416; DE 602004030279 T 20040416; JP 2004005443 W 20040416; JP 2006519123 A 20040416; US 54268604 A 20040416