

Title (en)

METHOD FOR THE HOT FORGING OF A SEAMLESS HOLLOW BODY OF MATERIAL THAT IS DIFFICULT TO FORM

Title (de)

VERFAHREN ZUM WARMSCHMIEDEN EINES NAHTLOSEN HOHLKÖRPERS AUS SCHWER UMFORMBAREM WERKSTOFF

Title (fr)

PROCÉDÉ DE FORGEAGE À CHAUD D'UN CORPS CREUX SANS SOUDURE EN MATÉRIAU DIFFICILE À DÉFORMER

Publication

EP 3049200 B1 20240410 (DE)

Application

EP 14772322 A 20140923

Priority

- DE 102013219310 A 20130925
- EP 2014070208 W 20140923

Abstract (en)

[origin: WO2015044120A1] The invention relates to a method for the hot forging of a seamless hollow body of material that is difficult to form. It is proposed that the hot forging is performed with a degree of forming, with respect to the cross section to be formed, in the forging section with $\ln(AO/A1)$ of less than 1.5 and a method-related form changing rate of less than 5/s, where AO is defined as the local cross-sectional area of a hollow body to be forged in m² and A1 is defined as a local cross-sectional area of the finished hollow body in m² and the form changing rate is defined as the maximum rate of the hollow body to be forged in m/s with respect to the outside diameter of the finished-forged hollow body in m.

IPC 8 full level

B21J 7/14 (2006.01); **B21J 13/00** (2006.01); **B21K 1/06** (2006.01)

CPC (source: EP)

B21J 7/14 (2013.01); **B21J 13/00** (2013.01); **B21K 1/063** (2013.01); **C21D 7/13** (2013.01)

Citation (examination)

DE 102005027259 A1 20061214 - DAIMLER CHRYSLER AG [DE]

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

DOCDB simple family (publication)

DE 102013219310 A1 20150326; BR 112016003146 A2 20170801; BR 112016003146 B1 20210713; CN 105592954 A 20160518; CN 105592954 B 20190322; EP 3049200 A1 20160803; EP 3049200 B1 20240410; WO 2015044120 A1 20150402

DOCDB simple family (application)

DE 102013219310 A 20130925; BR 112016003146 A 20140923; CN 201480049890 A 20140923; EP 14772322 A 20140923; EP 2014070208 W 20140923