

Title (en)

METHOD AND DEVICE FOR PRODUCING A HARD METAL TOOL

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG EINES HARTMETALL-WERKZEUGS

Title (fr)

PROCEDE ET DISPOSITIF DE PRODUCTION D'UN OUTIL CONSTITUE DE METAL DUR

Publication

**EP 1581354 A1 20051005 (DE)**

Application

**EP 03785943 A 20031224**

Priority

- DE 10300283 A 20030102
- EP 0314906 W 20031224

Abstract (en)

[origin: US2006162415A1] The method has a first material of lesser hardness acting as a rod-shaped carrier for a second material of greater hardness, each materials formed within a respective extrusion press tool and the plastic mass flow of the greater hardness material fed to the extrusion press tool for the lesser hardness material for providing a common plastic mass flow in the form of a rod-shaped body with a core and an outer region. An Independent claim for a device for manufacture of a hard metal workpiece is also included.

IPC 1-7

**B21C 23/22**

IPC 8 full level

**B21C 23/22** (2006.01)

CPC (source: EP KR US)

**B21C 23/22** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2004060588A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

**US 2006162415 A1 20060727; US 7204117 B2 20070417;** AT E334758 T1 20060815; AU 2003294959 A1 20040729; CN 1311924 C 20070425; CN 1729065 A 20060201; DE 10300283 B3 20040609; DE 50304527 D1 20060914; EP 1581354 A1 20051005; EP 1581354 B1 20060802; JP 2006512211 A 20060413; JP 4559864 B2 20101013; KR 101055160 B1 20110808; KR 20050088152 A 20050901; WO 2004060588 A1 20040722

DOCDB simple family (application)

**US 54117205 A 20050630;** AT 03785943 T 20031224; AU 2003294959 A 20031224; CN 200380107288 A 20031224; DE 10300283 A 20030102; DE 50304527 T 20031224; EP 0314906 W 20031224; EP 03785943 A 20031224; JP 2004564223 A 20031224; KR 20057012510 A 20031224