

Title (en)
METHOD FOR PRODUCING FORGINGS MAINLY MADE OF METALS AND ALLOYS OF TITANIUM GROUP AND A FORGING SYSTEM FOR CARRYING OUT SAID METHOD

Title (de)
"VERFAHREN ZUR HERSTELLUNG VON SCHMIEDESTÜCKEN, DIE IN ERSTER LINIE AUS METALLEN UND LEGIERUNGEN DER TITANGRUPPE BESTEHEN, UND SCHMIEDESYSTEM ZUR DURCHFÜHRUNG DES VERFAHRENS"

Title (fr)
PROCEDE DE FABRICATION DE PIECES FORGEES PRINCIPALEMENT A PARTIR DE METAUX ET D'ALLIAGES DU SOUS-GROUPE DE TITANE ET SYSTEME DE FORGEAGE PREVU A CET EFFET

Publication
EP 1491272 A1 20041229 (EN)

Application
EP 02756038 A 20020815

Priority
• RU 0200389 W 20020815
• RU 2002108590 A 20020404

Abstract (en)
[origin: US2004139781A1] Billett forging method involves heating and forging with two manipulator press in several passes by four-sided reduction in four-headed forging devices and transversal direction metal macro-shears. In temperature range, rough and final forging is carried out enclosing 40 to 100% of the cross-section perimeter of the billet. Forging system comprises forging press with top and bottom plates having locks arranging and fixing forging tools, a movable tool table positioning changeable forging tools, as two or more four-headed forging devices and one or two manipulators. Four-headed forging devices for rough and final forging are disposed on the table. Free space between the final forging device closed heads is 1.1-1.4 times less than the space between the rough forging heads. Working surface planes of rough forging device heads are parallel to the reference plane of the head, and two adjacent lateral planes arranged on two sides at a 135-170 ° angle.

IPC 1-7
B21J 1/04; **B21J 5/00**; **B21J 13/02**

IPC 8 full level
B21J 1/04 (2006.01); **B21J 5/00** (2006.01); **B21J 5/02** (2006.01); **B21J 7/14** (2006.01); **B21J 9/02** (2006.01); **B21J 13/02** (2006.01); **B21J 13/10** (2006.01)

CPC (source: EP KR US)
B21J 1/04 (2013.01 - EP KR US); **B21J 5/00** (2013.01 - EP KR US); **B21J 7/14** (2013.01 - EP US); **B21J 13/02** (2013.01 - EP KR US); **B21J 13/10** (2013.01 - EP US)

Citation (search report)
See references of WO 03084696A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)
US 2004139781 A1 20040722; CA 2449107 A1 20031016; CN 1246104 C 20060322; CN 1512922 A 20040714; EP 1491272 A1 20041229; KR 20040093654 A 20041106; RU 2220020 C1 20031227; UA 73393 C2 20050715; WO 03084696 A1 20031016

DOCDB simple family (application)
US 47773103 A 20031114; CA 2449107 A 20020815; CN 02811235 A 20020815; EP 02756038 A 20020815; KR 20047000947 A 20020815; RU 0200389 W 20020815; RU 2002108590 A 20020404; UA 2003065437 A 20020815