

Title (en)
FORGING METHOD AND FORGING APPARATUS

Title (de)
SCHMIEDEVERFAHREN UND SCHMIEDEVORRICHTUNG

Title (fr)
PROCÉDÉ DE FORGEAGE ET APPAREIL DE FORGEAGE

Publication
EP 3456429 B1 20211103 (EN)

Application
EP 16891733 A 20160909

Priority
• KR 20160021684 A 20160224
• KR 2016010132 W 20160909

Abstract (en)
[origin: EP3456429A1] The present disclosure relates to a forging method and forging apparatus in which at front and rear portions of a workpiece, two products can be simultaneously shaped, thereby to improve a productivity of compression-shaping. The forging apparatus includes a press having upper and lower dies; a tray plate supply assembly configured to supply, by one pitch, a tray plate from one side of the press to an opposite side of the press along a middle portion between front and rear portions of a top of the lower die such that the tray plate can ascend and descend each time the upper die is raised; a punching unit disposed on the upper and lower dies at one side thereof to continuously form a workpiece fixing hole in the tray plate; a workpiece plate supply assembly disposed in front of an opposite side of the punching unit for feeding the workpiece plate by one pitch to a position below the workpiece fixing hole defined in the tray plate, wherein the workpiece plate supply assembly forms a through-protrusion to pass through the workpiece fixing hole on a front-rear directional middle portion in a portion of the workpiece plate corresponding to the fed one pitch; a cutting and pressing and fixing assembly provided on the upper and lower die at an opposite side of the punching unit for cutting the workpiece plate to be fed to the position below the workpiece fixing hole of the tray plate by one pitch and for pressing and fixing the through-protrusion formed on the middle portion of the cut workpiece into the workpiece fixing hole; and a pressing and shaping unit disposed on the upper and lower dies at an opposite side of the cutting and pressing and fixing assembly for compressing and shaping the fed workpiece.

IPC 8 full level
B21D 22/04 (2006.01); **B21D 37/08** (2006.01); **B21D 39/03** (2006.01); **B21D 43/00** (2006.01); **B21J 5/02** (2006.01); **B21J 5/06** (2006.01); **B21J 5/10** (2006.01); **B21J 5/12** (2006.01); **B21J 9/02** (2006.01); **B21J 9/04** (2006.01); **B21K 23/00** (2006.01); **B21K 25/00** (2006.01); **B21K 27/02** (2006.01); **B21K 27/06** (2006.01)

CPC (source: EP US)
B21D 35/003 (2013.01 - EP US); **B21D 37/08** (2013.01 - EP US); **B21D 39/032** (2013.01 - US); **B21K 23/00** (2013.01 - EP); **B21K 25/00** (2013.01 - EP); **B21D 39/032** (2013.01 - EP); **B21D 43/00** (2013.01 - EP)

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)
EP 3456429 A1 20190320; **EP 3456429 A4 20200219**; **EP 3456429 B1 20211103**; HU E057048 T2 20220428; KR 101657145 B1 20160930; US 2022088665 A1 20220324; WO 2017146329 A1 20170831

DOCDB simple family (application)
EP 16891733 A 20160909; HU E16891733 A 20160909; KR 20160021684 A 20160224; KR 2016010132 W 20160909; US 201616330737 A 20160909