

Title (en)
PUNCHING TOOL AND METHOD

Title (de)
STANZWERKZEUG UND STANZVERFAHREN

Title (fr)
OUTIL ET PROCÉDÉ D'ESTAMPILLAGE

Publication
EP 3112042 B1 20190501 (DE)

Application
EP 15174529 A 20150630

Priority
EP 15174529 A 20150630

Abstract (en)
[origin: US2017001233A1] The disclosure relates to punching tools for punching machines for punching plate-shaped materials. The punching tools have an upper tool part with an upper cutting edge and a lower tool part with a lower cutting edge that move axially with respect to each other. The upper and lower cutting edges are arranged to cut off a part of the workpiece in a punching stroke. The upper cutting edge and/or the lower cutting edge include one or more transition regions that separate the cutting edge into at least two adjacent portions. The transition regions include, in the punching direction with respect to the respective adjacent portions, a discontinuity that is adapted to cut the material cut off from the workpiece into two or more individual parts in the same punching stroke.

IPC 8 full level
B21D 28/06 (2006.01)

CPC (source: CN EP US)
B21D 28/06 (2013.01 - EP US); **B21D 28/14** (2013.01 - CN); **B21D 28/26** (2013.01 - US); **B26F 1/14** (2013.01 - EP US)

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 3112042 A1 20170104; EP 3112042 B1 20190501; CN 106311865 A 20170111; CN 106311865 B 20201016; US 11117179 B2 20210914; US 2017001233 A1 20170105

DOCDB simple family (application)
EP 15174529 A 20150630; CN 201610563033 A 20160629; US 201615192081 A 20160624