

Title (en)

Method for defining a punching tool set for punching of work pieces and punching machine with such a punching tool set

Title (de)

Bearbeitungsprogramm zum Betreiben einer Stanzmaschine zum stanzenden Bearbeiten von Werkstücken, insbesondere von Blechen

Title (fr)

Procédé de définition d'un ensemble d'outil de poinçonnage destiné au traitement par poinçonnage de pièces usinées ainsi que machine de poinçonnage dotée d'un tel ensemble d'outil de poinçonnage

Publication

EP 2522443 A3 20121205 (DE)

Application

EP 12179637 A 20081018

Priority

- EP 12179637 A 20081018
- EP 08018279 A 20081018

Abstract (en)

[origin: EP2177290A1] The method involves removing material from a reprocessed die (16) and changing a location of a cutting edge of the die to a punch entry direction. A punch and a metal sheet thickness are assigned to the reprocessed die based on the change in the cutting edge cross-section of the reprocessed die. Independent claims are included for the following: (1) reprocessed die; (2) punch machine; and (3) computer readable medium storing program for reprocessing die.

IPC 8 full level

B21D 28/24 (2006.01); **B21D 28/14** (2006.01); **B21D 28/34** (2006.01)

CPC (source: EP US)

B21D 28/14 (2013.01 - EP US); **B21D 28/246** (2013.01 - EP US); **B21D 28/34** (2013.01 - EP US); **B21D 37/08** (2013.01 - US); **Y10T 29/49716** (2015.01 - EP US); **Y10T 83/0524** (2015.04 - EP US); **Y10T 83/8727** (2015.04 - EP US); **Y10T 83/8733** (2015.04 - EP US); **Y10T 83/9423** (2015.04 - EP US)

Citation (search report)

- [YA] JP 2002273530 A 20020925 - NAKAMURA SEISAKUSHO KK
- [YA] JP H10277662 A 19981020 - HITACHI CABLE
- [YA] DE 102006049044 A1 20080424 - TRUMPF WERKZEUGMASCHINEN GMBH [DE]
- [YA] DE 102005005214 A1 20060817 - TRUMPF WERKZEUGMASCHINEN GMBH [DE]
- [A] JP 2007007703 A 20070118 - PUNCH INDUSTRY CO LTD

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2177290 A1 20100421; **EP 2177290 B1 20130807**; EP 2522443 A2 20121114; EP 2522443 A3 20121205; EP 2522443 B1 20140730; JP 2011025309 A 20110210; JP 5858595 B2 20160210; US 2010095824 A1 20100422; US 2014202298 A1 20140724; US 8701532 B2 20140422; US 9573182 B2 20170221

DOCDB simple family (application)

EP 08018279 A 20081018; EP 12179637 A 20081018; JP 2009236233 A 20091013; US 201414220576 A 20140320; US 57981209 A 20091015