

Title (en)
HYDRAULIC PUNCHING APPARATUS

Title (de)
HYDRAULISCHES STANZGERÄT

Title (fr)
APPAREIL DE POINÇONNAGE HYDRAULIQUE

Publication
EP 3470147 B1 20201104 (DE)

Application
EP 18196871 A 20180926

Priority
DE 102017123723 A 20171012

Abstract (en)
[origin: US2019111464A1] The invention relates to a hydraulic punch device with a hydraulically driven punch carrier for releasably seating a punch and a die with a die opening adapted to the punch cross-section of the punch. To provide a punch device that makes it possible to reliably produce differently shaped holes, the punch has a punch cross-section different from a circular cross-section.

IPC 8 full level
B21D 28/34 (2006.01); **B21D 28/24** (2006.01); **B21D 37/04** (2006.01); **B26F 1/34** (2006.01)

CPC (source: EP US)
B21D 28/243 (2013.01 - EP US); **B21D 28/26** (2013.01 - US); **B21D 28/34** (2013.01 - EP US); **B21D 37/04** (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 3470147 A1 20190417; EP 3470147 B1 20201104; DE 102017123723 A1 20190418; DE 102017123723 B4 20230316;
US 10773293 B2 20200915; US 2019111464 A1 20190418

DOCDB simple family (application)
EP 18196871 A 20180926; DE 102017123723 A 20171012; US 201816156561 A 20181010