

Title (en)

Drive unit for a punching machine or a press

Title (de)

Antriebseinheit für einen Stanzautomat oder eine Presse

Title (fr)

Unité d'entraînement pour une machine d'estampage ou une presse

Publication

**EP 2397315 A3 20130918 (DE)**

Application

**EP 11004833 A 20110614**

Priority

AT 10172010 A 20100621

Abstract (en)

[origin: EP2397315A2] The unit has a main drive designed as a spindle drive (20) for implementing pressure stroke in the unit, and an auxiliary drive comprising a knee lever system with an upper knee lever side piece (12), lower knee lever side piece (13), knee lever joint (14) and a fixed stopper (15). The lever side pieces are mechanically blocked by a fixed stopper (15). The knee lever system is actuated via a linear drive, toothed rod drives (16, 17) or spindle drive. The lever side pieces form an angle of above 181 degree on a side that faces the fixed stopper. An independent claim is also included for a method for processing a workpiece.

IPC 8 full level

**B30B 1/10** (2006.01); **B30B 1/18** (2006.01)

CPC (source: EP)

**B30B 1/10** (2013.01); **B30B 1/103** (2013.01); **B30B 1/18** (2013.01)

Citation (search report)

- [X] JP 2001113393 A 20010424 - INST TECH PRECISION ELECT
- [X] DE 202006004470 U1 20060614 - SCHNUPP KONRAD [DE]
- [X] US 1007792 A 19111107 - ORTON FREDERICK [US]
- [A] US 2006249038 A1 20061109 - FUTAMURA SHOJI [JP], et al
- [A] EP 0538582 A1 19930428 - AIDA ENG LTD [JP]

Cited by

JP2016032427A; CN104552540A; US9948218B2; WO2016013664A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2397315 A2 20111221; EP 2397315 A3 20130918; EP 2397315 B1 20160113; EP 2397315 B8 20160518**; AT 510052 A1 20120115; AT 510052 B1 20130715; ES 2567302 T3 20160421; SI 2397315 T1 20160429

DOCDB simple family (application)

**EP 11004833 A 20110614**; AT 10172010 A 20100621; ES 11004833 T 20110614; SI 201130758 T 20110614