

Title (en)

Multiple tool for punch press.

Title (de)

Mehrfachwerkzeug für eine Stanzpresse.

Title (fr)

Outil multiple pour poinçonneuse.

Publication

**EP 0580124 A1 19940126 (EN)**

Application

**EP 93111604 A 19930720**

Priority

JP 19354492 A 19920721

Abstract (en)

In a multiple tool for a punch press, a plurality of punches (57) are arranged circularly so as to be movable up and down within a stripper guide (41) provided also movably up and down in an upper die holding member (15) of the punch press (1); a punch driver (87) is disposed so as to be rotatable and movable up and down within the stripper guide (41); and a circumferential groove (91) is formed in a lower surface of the punch driver (87) for engagement with head portions (59) of the punches (57) in such a way that a plurality of punch through-spaces (93) are formed over the circumferential groove (91) except a strike portion (95) for striking any selected one of a plurality of the punches (57). Further, an indexing device (121) is mounted to rotate the punch driver (87) so that the strike portion (95) can be indexed over any required punch (57A), for instance. Since only one required punch of a plurality of the punches can be struck without moving the striker, the multiple tool is simple in structure, high in precision, and low in cost. <IMAGE>

IPC 1-7

**B21D 28/12**

IPC 8 full level

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CPC (source: EP)

**B21D 28/12** (2013.01); **B21D 28/125** (2013.01)

Citation (search report)

- [XD] EP 0396817 A2 19901114 - STRIPPIT INC [US]
- [Y] EP 0399338 A1 19901128 - MURATA WIEDEMANN INC [US]
- [A] PATENT ABSTRACTS OF JAPAN vol. 9, no. 226 (M-412)(1949) 12 September 1985 & JP-A-60 082 231 ( MURATA )

Cited by

CN112475001A; CN112427524A; CN100370467C; EP2177290A1; CN107073554A; CN114749551A; DE102006049044A1; DE102006049044B4; EP1057551A1; US5848563A; CN113579044A; WO2020083866A1; WO0132330A1; WO2008049079A1; US8701532B2; US9573182B2; US8627753B2; US9839953B2; US10792722B2

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