

Title (en)
Punching apparatus

Title (de)
Vorrichtung zum Stanzen

Title (fr)
Dispositif de poinçonnage

Publication
EP 1250969 A3 20030604 (DE)

Application
EP 02007067 A 20020327

Priority
DE 10115098 A 20010327

Abstract (en)
[origin: DE10115098A1] Punching device comprises a punch (2), a die and a hydraulic cylinder (1). The die is arranged above the punch. During the punching process the punch moves upward and devices for taking away the pocket of ore are arranged above the die. An Independent claim is also included for an appliance comprising at least two punching devices.

IPC 1-7
B21D 28/00; **B21D 45/00**; **B22D 31/00**

IPC 8 full level
B26D 5/12 (2006.01)

CPC (source: EP)
B26D 5/12 (2013.01)

Citation (search report)

- [A] DE 9217195 U1 19930318
- [A] EP 0477290 A1 19920401 - UNIV MICHIGAN [US]
- [A] DE 3219390 A1 19821216 - LUEBER WERNER
- [A] DE 3637367 A1 19870625 - LUEBER WERNER

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1250969 A2 20021023; **EP 1250969 A3 20030604**; DE 10115098 A1 20021002

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