

Title (en)
Progressive die for punching press

Title (de)
Folgeverbundwerkzeug

Title (fr)
Outil à suivre pour presse d'emboutissage

Publication
EP 1457275 B1 20060712 (DE)

Application
EP 03015765 A 20030710

Priority
DE 10311174 A 20030312

Abstract (en)
[origin: EP1457275A1] The die unit (1) with an upper part (6) and a lower part (7) produces structured metal foil (3) with at least two overlapping structures. It has at least three spatially separate working regions: a stamping region to remove foil material from certain positions of the foil (4), a primary shaping region (5) to apply the primary corrugated structure, and a secondary one to impose the secondary structure on the first structure.

IPC 8 full level
B21D 13/02 (2006.01); **B21D 31/04** (2006.01)

CPC (source: EP)
B21D 13/02 (2013.01); **B21D 31/043** (2013.01)

Citation (examination)
GB 1301667 A 19730104

Cited by
CN103537539A; DE102004045106A1; CN115446175A; GB2441983A; CN113751586A; EP3967512A1; US11524476B2; US7871576B2;
DE102008057019A1; WO2006027008A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1457275 A1 20040915; EP 1457275 B1 20060712; AT E332770 T1 20060815; DE 10311174 A1 20040923; DE 50304208 D1 20060824

DOCDB simple family (application)
EP 03015765 A 20030710; AT 03015765 T 20030710; DE 10311174 A 20030312; DE 50304208 T 20030710