

Title (en)  
PROGRESSIVE METHOD AND DIE FOR PUNCHED PARTS

Publication  
**EP 0325947 B1 19920520 (DE)**

Application  
**EP 89100405 A 19890111**

Priority  
DE 3802247 A 19880127

Abstract (en)  
[origin: EP0325947A2] A progressive method for the production of punched parts in a plurality of steps, such as shaping steps, catching step and punching out. In punching out, the punched part is cut out by a punch in conjunction with a die in accordance with the outline of the punched part. The technical problem is to provide a progressive method which supplies stamped parts with virtually negligible drawing in. In a stamping step before punching out, an impression is made to a depth which is a fraction of the thickness of the strip to be punched, with an outline somewhat larger than the outline of the punched part, and the drawn-in portion formed during the stamping step is caused to flow in the punching out step, with the result that a sheared edge with straight outlines is obtained. A progressive tool comprises a stamping punch with larger cross-sectional dimensions than the punched part. <IMAGE>

IPC 1-7  
**B21D 28/02; B21D 28/16**

IPC 8 full level  
**B21D 37/08** (2006.01); **B21D 53/16** (2006.01)

CPC (source: EP)  
**B21D 37/08** (2013.01); **B21D 53/16** (2013.01)

Cited by  
DE102012103167B4; FR3084602A1; DE102016107300A1; AT502173B1; WO2015185852A1; US7308814B2; DE102012103167A1

Designated contracting state (EPC)  
ES FR GB IT

DOCDB simple family (publication)  
**DE 3802247 C1 19890518**; EP 0325947 A2 19890802; EP 0325947 A3 19900905; EP 0325947 B1 19920520; ES 2032056 T3 19930101

DOCDB simple family (application)  
**DE 3802247 A 19880127**; EP 89100405 A 19890111; ES 89100405 T 19890111