

Title (en)  
Punching and stamping tool

Title (de)  
Stanz-Prägewerkzeug

Title (fr)  
Outil pour poinçonnage et estampage

Publication  
**EP 0893178 B1 20030409 (DE)**

Application  
**EP 98112948 A 19980713**

Priority  

- DE 29713346 U 19970726
- DE 29716441 U 19970912
- DE 19808016 A 19980226

Abstract (en)  
[origin: US6041493A] A rivet tool has a rivet pin which can be moved in a bore of a stamp die. The tool consists of a hydraulic cylinder having two pistons in which the first piston carries the rivet pin and the second piston carries the stamp die. The chamber between the pistons is connected with a variable volume pressure chamber. The cylinder chamber, which is facing the first piston, is connected with a pressure cylinder. After a rivet has been conveyed to beneath the rivet pin, a pressure cylinder is activated and a throttle interconnected between the chamber between the pistons and the pressure chamber. The stamping process is carried out hereby and the first piston is then pressed in direction of the second piston, whereby the first piston then lies on top of the second piston to effect the stamping process.

IPC 1-7  
**B21J 15/02; B21J 15/20**

IPC 8 full level  
**B21J 15/02** (2006.01); **B21J 15/20** (2006.01); **B21J 15/36** (2006.01)

CPC (source: EP US)  
**B21J 15/025** (2013.01 - EP US); **B21J 15/20** (2013.01 - EP US); **B21J 15/36** (2013.01 - EP US); **Y10T 29/53065** (2015.01 - EP US);  
**Y10T 29/5377** (2015.01 - EP US)

Cited by  
DE102006013651B4; EP1055466A3; CN108099219A

Designated contracting state (EPC)  
DE ES FR GB IT

DOCDB simple family (publication)  
**US 6041493 A 20000328**; CA 2243922 A1 19990126; CA 2243922 C 20060926; EP 0893178 A2 19990127; EP 0893178 A3 20000816;  
EP 0893178 B1 20030409; ES 2193444 T3 20031101

DOCDB simple family (application)  
**US 12337398 A 19980727**; CA 2243922 A 19980727; EP 98112948 A 19980713; ES 98112948 T 19980713