

Title (en)

Die for clinch joints

Title (de)

Durchsetzfügematrize

Title (fr)

Matrice pour joints à mi-fer

Publication

**EP 0835701 A3 19991110 (DE)**

Application

**EP 97115887 A 19970912**

Priority

- DE 29617574 U 19961009
- DE 29618060 U 19961018

Abstract (en)

[origin: US5992206A] A tool set for clinch-connecting superposed sheet materials is disclosed, the tool set comprising a punch and a die. The die includes an anvil and shaping elements displaceably disposed on the anvil. All shaping elements are positioned by one single metallic member mounted on the die such that it is destroyed upon removal. Also, a novel socket for mounting the tool set on a press is disclosed.

IPC 1-7

**B21D 39/03**

IPC 8 full level

**B21D 24/00** (2006.01); **B21D 28/34** (2006.01); **B21D 37/04** (2006.01); **B21D 37/14** (2006.01); **B21D 39/03** (2006.01); **B21J 13/03** (2006.01)

CPC (source: EP US)

**B21D 28/34** (2013.01 - EP US); **B21D 37/04** (2013.01 - EP US); **B21D 39/031** (2013.01 - EP US); **B21J 13/03** (2013.01 - EP US); **Y10T 29/34** (2015.01 - EP US)

Citation (search report)

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- [A] US 5315743 A 19940531 - SCHLEICHER LOUIS C [US]
- [A] FR 2661341 A2 19911031 - PIGNON GUY

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Designated contracting state (EPC)

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DOCDB simple family (publication)

**US 5992206 A 19991130**; AT E254516 T1 20031215; DE 59711026 D1 20031224; EP 0835701 A2 19980415; EP 0835701 A3 19991110; EP 0835701 B1 20031119; ES 2212024 T3 20040716; JP 2005046912 A 20050224; JP H10180374 A 19980707

DOCDB simple family (application)

**US 94689097 A 19971008**; AT 97115887 T 19970912; DE 59711026 T 19970912; EP 97115887 A 19970912; ES 97115887 T 19970912; JP 2004235946 A 20040813; JP 27744497 A 19971009