

Title (en)

Die for clinch joints

Title (de)

Durchsetzfügematrize

Title (fr)

Matrice pour joints à mi-fer

Publication

EP 0835701 A2 19980415 (DE)

Application

EP 97115887 A 19970912

Priority

- DE 29617574 U 19961009
- DE 29618060 U 19961018

Abstract (en)

The die has an anvil (10) and at least two jaws (18) which form a split die and are retained by a spring clip (56). A punch presses the sheet material between the jaws and expands it against the anvil face (20). The die jaws are made of non-elastomeric material, and can not be detached without destroying the spring clip. The spring clip is made from a single pressed and folded spring steel and has an elongated hole (36) which locates, guides and limits the lateral travel of the jaws. Retaining tongues (40) are provided having straps (44) which overlap and are spot welded (48). Spring blades (52,56) exert a closing force on the jaws.

Abstract (de)

Die Erfindung betrifft einen Werkzeugsatz für das Durchsetzfügen, bei dem die Durchsetzfügematrize einen Amboß (10) und auf ihm beweglich angeordnete Spreizteile (16) umfaßt. Alle Spreizteile werden von einem federelastischen nichtelastomeren Bauteil gehalten, das nur unter Zerstörung von der Matrize lösbar ist. Offenbart wird auch ein neuartiger Sockel (12) für das Einfügen des Werkzeugsatzes in eine Presse.
<IMAGE>

IPC 1-7

B21D 39/03

IPC 8 full level

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CPC (source: EP US)

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Cited by

EP1857197A1; DE102012101894A1; DE10006789A1; DE10006789C2; US9796014B2; US7150086B2; WO02081112A3

Designated contracting state (EPC)

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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