

Title (en)

CLINCHING METHOD AND TOOL THEREFOR

Title (de)

DURCHSETZFÜGEVERFAHREN UND WERKZEUG DAFÜR

Title (fr)

PROCEDE DE SERTISSAGE ET OUTIL CORRESPONDANT

Publication

EP 1497053 A1 20050119 (DE)

Application

EP 03727179 A 20030404

Priority

- DE 0301127 W 20030404
- DE 10214957 A 20020404
- DE 10231832 A 20020712

Abstract (en)

[origin: DE10315724A1] The method for forming a clinched connection between a panel and a fastener such as a nut involves a first deep drawing stage to form the clinched joint between a punch (1) and a die opening (4) in the base (6) of the die (5). The panel material is plastically deformed between the punch and floor (9) of the die. Between the flexible wall sections (8) of the die cavity (4) there is a wall section (7) fixed to the base of the die. Claims include a press tool for use with the method.

IPC 1-7

B21D 39/03

IPC 8 full level

B21D 39/03 (2006.01); **B21J 15/02** (2006.01)

CPC (source: EP KR US)

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Y10T 29/5377 (2015.01 - EP US)

Cited by

DE102023201958A1

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)

WO 03084694 A1 20031016; AT E422174 T1 20090215; AU 2003233930 A1 20031020; BR 0308971 A 20050111; CN 100377805 C 20080402;
CN 1646242 A 20050727; DE 10315724 A1 20031113; DE 50311156 D1 20090319; EP 1497053 A1 20050119; EP 1497053 B1 20090204;
ES 2318133 T3 20090501; KR 100992106 B1 20101104; KR 20040106319 A 20041217; MX PA04009688 A 20041213; SI 1497053 T1 20090630;
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DE 10315724 A 20030404; DE 50311156 T 20030404; EP 03727179 A 20030404; ES 03727179 T 20030404; KR 20047015832 A 20030404;
MX PA04009688 A 20030404; SI 200331572 T 20030404; US 51032205 A 20050922