

Title (en)

APPARATUS FOR MAKING A RIVETED JOINT OF METAL SHEETS

Publication

EP 0077932 B1 19841227 (DE)

Application

EP 82109043 A 19820930

Priority

- DE 8131528 U 19811028
- DE 8207848 U 19820319

Abstract (en)

[origin: CA1182665A] A device is disclosed for joining metal sheets by a rivetting-type method The device has a female die and a male die which can be moved in the direction of the female die by means of a press, the sheets being superposed face-to-face between the dies. The male die comprises a punch provided with cutting edges and the female die comprises counter-edges and an anvil which is set back behind the counter-edges and on which the material forced through the counter-edges by the punch is pressed to flow behind the incision rims, whilst the counter edges yield laterally and, after the joint has been lifted out of the female die, are returned again into their cutting position by means of spring tension. The counter-edges are formed by the free end rims of leaf springs which are clamped on one side and extend parallel to the movement of the male die.

IPC 1-7

B21D 39/03

IPC 8 full level

B21D 39/03 (2006.01); **B21J 15/00** (2006.01)

CPC (source: EP US)

B21D 39/035 (2013.01 - EP US); **B21J 15/025** (2013.01 - EP US); **Y10T 29/49812** (2015.01 - EP US); **Y10T 29/49833** (2015.01 - EP US); **Y10T 29/49915** (2015.01 - EP US); **Y10T 29/49936** (2015.01 - EP US); **Y10T 29/5343** (2015.01 - EP US); **Y10T 29/5377** (2015.01 - EP US)

Cited by

EP0272376A3; DE10211257B4; EP0155619A3; DE4432639A1; DE19747267A1; DE19747267C2; GB2244946A; DE3701895C1; CN1041287C; EP0155618A3; EP0215449A1; CN105414364A; EP0513473A1; EP0330061A3; DE3805688A1; DE19847794C1; DE19748791A1; DE19748791C2; US6240627B1; WO9921668A1; EP0614405B2

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0077932 A1 19830504; EP 0077932 B1 19841227; CA 1182665 A 19850219; DE 3261709 D1 19850207; ES 276168 U 19850401; ES 276168 Y 19851101; ES 279143 U 19850401; ES 279143 Y 19851101; HK 82486 A 19861107; SG 24986 G 19870327; SU 1160925 A3 19850607; US 4614017 A 19860930

DOCDB simple family (application)

EP 82109043 A 19820930; CA 414252 A 19821027; DE 3261709 T 19820930; ES 276168 U 19821027; ES 279143 U 19840416; HK 82486 A 19861030; SG 24986 A 19860317; SU 3506003 A 19821027; US 43809582 A 19821101