

Title (en)

JOINTING DEVICE, PUSH-THROUGH JOINTING METHOD AND PUSH-THROUGH JOINT ASSEMBLY

Title (de)

FÜGEVORRICHTUNG, DURCHSETZFÜGEVERFAHREN UND DURCHSETZFÜGEVERBINDUNG

Title (fr)

DISPOSITIF D'ABOUTAGE, PROCEDE D'ABOUTAGE PAR ENCHEVETREMENT ET ASSEMBLAGE REALISE PAR ABOUTAGE PAR ENCHEVETREMENT

Publication

**EP 1117497 A1 20010725 (DE)**

Application

**EP 99946154 A 19990910**

Priority

- DE 19843834 A 19980924
- EP 9906678 W 19990910

Abstract (en)

[origin: US6651300B1] A clenching device for generating a clenching connection between a first workpiece and a second workpiece using a plunger which is movable from above into a recess of a die, wherein a peripheral wall of the recess has stationary wall sections which extend essentially parallel to a pressure direction. The peripheral wall of the recess has between the stationary wall sections movable wall sections which are arranged on levers. The levers are movable by pressures from above into a working position and are securable therein and from undercut areas and are movable by movement of the workpieces after the workpieces have been jointed in the upward direction into a release position in which the undercut areas are completely released.

IPC 1-7

**B21D 39/03**

IPC 8 full level

**B21D 39/03** (2006.01)

CPC (source: EP US)

**B21D 39/031** (2013.01 - EP US); **Y10T 29/49936** (2015.01 - EP US); **Y10T 29/49938** (2015.01 - EP US); **Y10T 29/53678** (2015.01 - EP US); **Y10T 29/53709** (2015.01 - EP US)

Cited by

CN102481614A

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**US 6651300 B1 20031125**; AT E221424 T1 20020815; BR 9913916 A 20010619; CA 2345004 A1 20000330; DE 19843834 A1 20000413; DE 19843834 C2 20010503; DE 59902217 D1 20020905; EP 1117497 A1 20010725; EP 1117497 B1 20020731; ES 2180327 T3 20030201; MX PA01002941 A 20020604; WO 0016928 A1 20000330

DOCDB simple family (application)

**US 80607301 A 20010511**; AT 99946154 T 19990910; BR 9913916 A 19990910; CA 2345004 A 19990910; DE 19843834 A 19980924; DE 59902217 T 19990910; EP 9906678 W 19990910; EP 99946154 A 19990910; ES 99946154 T 19990910; MX PA01002941 A 19990910