

Title (en)

METHOD AND INSTALLATION FOR MAKING A WORKPIECE COMPRISING AT LEAST A TUBULAR SECTION

Title (de)

VERFAHREN UND ANLAGE ZUR HERSTELLUNG EINES WERKSTÜCKES MIT ZUMINDEST EINEM ROHRFÖRMIGEN QUERSCHNITT

Title (fr)

PROCEDE ET INSTALLATION DE FABRICATION D'UNE PIECE COMPORTANT AU MOINS UNE SECTION TUBULAIRE

Publication

**EP 1320427 B1 20040609 (FR)**

Application

**EP 01972204 A 20010925**

Priority

- FR 0102970 W 20010925
- FR 0012240 A 20000926

Abstract (en)

[origin: WO0226412A1] The invention concerns a method which consists in pre-bending a metal plate along at least two longitudinal edges (12-13) then in bending said plate along at least one edge (12-13) using a bending member (103-104) by exerting, during the bending process (F1, F3), a clamping force (F7, F8) of part (23, 24) of the plate relative to the bending member (103, 104). Said clamping force (F7, F8) can be globally oriented towards the edge (12, 13). The installation comprises at least a member for bending (103-104) the metal plate along a longitudinal edge (12-13) of a tubular section of the frame. The bending member (103-104) is equipped with means (103f-104f) for exerting on a part (23, 24) of the plate a clamping force (F7, F8) countering the sliding of part (23, 24) of the plate along the bending member (103, 104). The bending member is articulated about a virtual geometrical axis (a, c) located inside the corresponding tubular section of the component to be produced.

IPC 1-7

**B21D 5/04**; **H01J 9/14**

IPC 8 full level

**B21D 5/04** (2006.01); **B21D 53/00** (2006.01); **H01J 9/14** (2006.01); **H01J 29/07** (2006.01)

CPC (source: EP KR US)

**B21D 5/04** (2013.01 - EP KR US); **H01J 9/142** (2013.01 - EP US); **H01J 29/073** (2013.01 - EP US); **H01J 2229/0722** (2013.01 - EP US)

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**WO 0226412 A1 20020404**; AT E268652 T1 20040615; AU 9199101 A 20020408; CN 1226110 C 20051109; CN 1466498 A 20040107; DE 60103769 D1 20040715; DE 60103769 T2 20050811; EP 1320427 A1 20030625; EP 1320427 B1 20040609; FR 2814386 A1 20020329; FR 2814386 B1 20030620; JP 2004509764 A 20040402; JP 3694715 B2 20050914; KR 100826259 B1 20080429; KR 20030065477 A 20030806; TW 571329 B 20040111; US 2003192356 A1 20031016; US 6988390 B2 20060124

DOCDB simple family (application)

**FR 0102970 W 20010925**; AT 01972204 T 20010925; AU 9199101 A 20010925; CN 01816313 A 20010925; DE 60103769 T 20010925; EP 01972204 A 20010925; FR 0012240 A 20000926; JP 2002530232 A 20010925; KR 20037003745 A 20030314; TW 90123560 A 20010925; US 38137103 A 20030325