

Title (en)
DEVICE FOR MANIPULATING METAL SHEETS

Publication
EP 0136598 B1 19871119 (DE)

Application
EP 84110765 A 19840910

Priority
AT 350983 A 19831004

Abstract (en)
[origin: US4708573A] A device for handling metal sheet workpieces for a bending press or other metal-working machine has a pair of vertical plates which are movable along the front of the press and are spanned by guide columns upon which respective slides are movable vertically to carry the tongs. A turntable on the press allows rotation of the plates about horizontal axes in the vertical plane.

IPC 1-7
B21D 5/01; **B21D 5/04**

IPC 8 full level
B21D 5/02 (2006.01); **B21D 5/04** (2006.01); **B21D 43/10** (2006.01)

CPC (source: EP US)
B21D 5/02 (2013.01 - EP US); **B21D 5/04** (2013.01 - EP US); **B21D 43/105** (2013.01 - EP US)

Cited by
DE4008819A1; DE3941551A1; AT399303B; EP0300984A3; DE3908496A1; FR2628661A1; US5042287A; DE3908496C2

Designated contracting state (EPC)
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DOCDB simple family (publication)
EP 0136598 A2 19850410; **EP 0136598 A3 19850925**; **EP 0136598 B1 19871119**; AT 378701 B 19850925; AT A350983 A 19850215; CA 1233623 A 19880308; DE 3467518 D1 19871223; JP H0571328 B2 19931007; JP S60145221 A 19850731; US 4708573 A 19871124

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EP 84110765 A 19840910; AT 350983 A 19831004; CA 464782 A 19841004; DE 3467518 T 19840910; JP 20648884 A 19841003; US 65734784 A 19841003