

Title (en)

Quick upper tool coupling and uncoupling device of a press brake

Title (de)

Schnelle Kupplungs- und Unkupplungs-Vorrichtung für das Oberwerkzeug einer Biegepresse

Title (fr)

Dispositif de couplage et découplage rapide pour un outil supérieur d'une presse plieuse

Publication

**EP 1762310 A1 20070314 (EN)**

Application

**EP 05425638 A 20050913**

Priority

EP 05425638 A 20050913

Abstract (en)

The rapid coupling and uncoupling device consists essentially of a plunger element 12 capable of being inserted into the clamp 4 or into the top beam/intermediary 1 of the press brake, or into the tool connection 2, having a cursor 14 with a terminal part of a tapered form pressed by a spring to engage within a groove 16 present in the tool connection or in the clamp or in the top beam/intermediary, respectively.

IPC 8 full level

**B21D 5/02** (2006.01)

CPC (source: EP)

**B21D 5/0209** (2013.01); **B21D 5/0236** (2013.01)

Citation (applicant)

EP 0494714 A1 19920715 - WILA MASCHF BV [NL]

Citation (search report)

- [XY] JP H06182447 A 19940705 - AMADA METRECS CO
- [Y] DE 3524694 A1 19870122 - HILMA GMBH MASCHF [DE]
- [Y] JP H10277647 A 19981020 - AMADA METRECS CO
- [AD] EP 0494714 A1 19920715 - WILA MASCHF BV [NL]
- [XY] PATENT ABSTRACTS OF JAPAN vol. 018, no. 524 (M - 1682) 4 October 1994 (1994-10-04)
- [Y] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 01 29 January 1999 (1999-01-29)

Cited by

ITVR20100202A1; ITBO20090540A1; CN109702070A; CN104138939A; ITMI20100110A1; CN104259260A; NL2009340C2; CN104507596A; JP2018134684A; US10883249B2; US10144049B2; IT202200015465A1; WO2012052942A1; WO2014007640A1; WO2011092558A1

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Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1762310 A1 20070314**; **EP 1762310 B1 20071114**; AT E378122 T1 20071115; DE 602005003366 D1 20071227; DE 602005003366 T2 20080221; ES 2296121 T3 20080416; PL 1762310 T3 20080430

DOCDB simple family (application)

**EP 05425638 A 20050913**; AT 05425638 T 20050913; DE 602005003366 T 20050913; ES 05425638 T 20050913; PL 05425638 T 20050913