

Title (en)

DEVICE FOR ROTATIONALLY LOCKING THE SUPPORTING ROLL BALANCED ARCHITECTURE OF ROLL STANDS

Title (de)

VORRICHTUNG ZUR DREHVERRIEGELUNG DER STÜTZWALZENBALANCIERUNG VON WALZGERÜSTEN

Title (fr)

DISPOSITIF DE VERROUILLAGE ROTATIF DE L'ÉQUILIBRE DES ROULEAUX DE SUPPORT DE CAGES DE LAMINOIR

Publication

**EP 1907143 B1 20091216 (DE)**

Application

**EP 07765182 A 20070711**

Priority

- EP 2007006165 W 20070711
- DE 102006032813 A 20060714

Abstract (en)

[origin: WO2008006571A1] With a roll stand (1), in particular a thick plate roll stand with a right stand frame (2), a left stand frame (3), an upper stand cross beam (4) connecting said frames, at least one pair of working rollers, and one pair of support rollers and the appertaining inserts, as well as a balancing device with holding arms (5, 6), and a piston rod (7) that protrudes through the cross beam in the upward direction and that projects above the top surface (8) of the cross beam (4). A brace (10), located on the outer end (9) of the piston rod (7), is aligned in the direction of the roller and engages with the holding arms (5, 6) of the balancing device. A rotational sleeve (11) arranged between the top edge (12) of the balance cylinder (22) and the bottom edge (13) of the brace (10) clasps around the piston rod (7) and is thus supported on the cross beam (4), and has at least one continuous groove (14) into which the brace (10) can dip.

IPC 8 full level

**B21B 31/20** (2006.01)

CPC (source: EP US)

**B21B 31/203** (2013.01 - EP US); **B21B 31/106** (2013.01 - EP US); **B21B 31/32** (2013.01 - EP US)

Citation (examination)

- JP H0484624 A 19920317 - NIPPON KOKAN KK
- JP S58172507 A 19831011 - NIPPON KOKAN KK
- JP H07246414 A 19950926 - NIPPON KOKAN KK
- JP 2001293503 A 20011023 - SUMITOMO METAL IND
- JP 2002035817 A 20020205 - SUMITOMO METAL IND
- US 2004065133 A1 20040408 - SASAKI KENICHI [JP], et al
- JP 2003220403 A 20030805 - SUMITOMO METAL IND
- JP 2004337941 A 20041202 - SUMITOMO METAL IND
- JP H0871616 A 19960319 - SUMITOMO METAL IND

Cited by

WO2020173614A1; US11779973B2

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