

Title (en)

Strip tension control apparatus

Title (de)

Vorrichtung zur Regelung des Bandzuges

Title (fr)

Dispositif de commande de la tension d'une bande

Publication

EP 0579854 B2 20011031 (EN)

Application

EP 92112605 A 19920723

Priority

- EP 92112605 A 19920723
- CA 2074434 A 19920722

Abstract (en)

[origin: EP0579854A1] The tension of a strip can be controlled with high responsiveness and high accuracy despite its drastic external variation by threading the strip (1) between a transportation roll (2) and a movable transportation roll (10) and moving the movable transportation roll (10). The movable transportation roll (10) is mounted on one end of an arm (11), which is mounted for a swing motion around a supporting shaft (12), a torque around the supporting shaft (12) is generated in the arm (11) by means of an arm driving motor (14) connected directly to the supporting shaft (12), thereby applying a tension to the strip (1). The angle of swing motion of the arm (11) is detected by means of an arm angle sensor (16), and the tension of the strip (1) is detected by means of a tension sensor (15). The torque to be generated in the arm (11) is corrected in accordance with the detected angle and tension, whereby the strip tension is controlled for a target tension. <IMAGE>

IPC 1-7

B65H 23/188; **B65H 23/04**; **B21B 41/12**

IPC 8 full level

B21B 37/50 (2006.01); **B21B 41/12** (2006.01); **B65H 23/04** (2006.01); **B65H 23/16** (2006.01); **B65H 23/188** (2006.01)

CPC (source: EP)

B21B 37/50 (2013.01); **B21B 41/12** (2013.01); **B65H 23/044** (2013.01); **B65H 23/048** (2013.01); **B65H 23/16** (2013.01); **B65H 23/188** (2013.01); **B65H 2511/112** (2013.01); **B65H 2513/10** (2013.01)

Citation (opposition)

Opponent :

- DE 2618901 A1 19761111 - ISHIKAWAJIMA HARIMA HEAVY IND
- AT 35781 B 19090111 - BACHMANN KONRAD
- DE 2911881 A1 19801002 - HOESCH WERKE AG

Cited by

DE102008028113A1; DE102014103552B4; CN106583464A; DE102005059822B3; EP0936275A1; CN1065000C; EP1964799A1; CN111392367A; DE102014103552A1; CN117819298A; US7413139B2; WO03099691A1

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DE FR GB

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EP 92112605 A 19920723; CA 2074434 A 19920722