

Title (en)

METHOD FOR STRAIGHTENING PARTS IN A ROLLER STRAIGHTENING MACHINE

Title (de)

VERFAHREN ZUM RICHTEN VON TEILEN IN EINER WALZENRICHTMASCHINE

Title (fr)

PROCÉDÉ POUR DRESSER DES PIÈCES DANS UNE MACHINE À DRESSER À GALETS

Publication

**EP 2313215 A2 20110427 (DE)**

Application

**EP 09780450 A 20090710**

Priority

- EP 2009058849 W 20090710
- EP 08012481 A 20080710
- EP 09780450 A 20090710

Abstract (en)

[origin: WO2010004037A2] The invention relates to a method for aligning parts (11) in a roller straightening machine, comprising an upper and a lower roller frame where the upper and lower straightening rollers are each arranged in a straightening roller block and the position and inclined position of at least one of the straightening roller blocks can be changed in order to adjust the straightening slot, characterized in that at least one straightening slot adjustment device is arranged on the input side and the output side of the straightening machine and a straightening slot regulation is provided in order to adjust the straightening slot, the method comprising the following steps: a) detecting the total length (f) of the part (11) to be straightened; b) dividing the length of the part to be straightened into a number n of identical partial surfaces having the side length ?X, where the distances between them are to be selected such that there is an integral number of partial surfaces having the side length ?X in each straightening triangle having the length 2t; c) detecting the thickness s of the part to be straightened; d) detecting the width b in the center of the respective partial surface; e) calculating the values bs2 for each partial surface; f) determining the values bs2M by forming a mean value of the number of values bs2 in each straightening triangle; g) relating the values bs2M to the specific variable of the straightening machine and multiplying the resulting values with the maximum deflection value (max X) of the roller frame, which comprises the adjustable straightening roller block, and the ratio of yield point of the straightening material (sF) to the maximum design variable of the straightening machine, resulting in the offset value of the optimum offset; h) adding during straightening of the part (11) to be straightened the offset value determined for each straightening triangle to the basic adjustment value of the straightening slot on the input side of the straightening machine in order to ensure tracking of the adjustment device of the straightening slot as a function of the represented straightening triangles which are moving in the direction of the part (11) to be aligned in the straightening slot.

IPC 8 full level

**B21D 3/05** (2006.01); **B21F 1/02** (2006.01)

CPC (source: EP US)

**B21D 3/05** (2013.01 - EP US); **B21F 1/02** (2013.01 - EP US)

Citation (search report)

See references of WO 2010004037A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**WO 2010004037 A2 20100114; WO 2010004037 A3 20100805;** AT E534477 T1 20111215; CN 102099132 A 20110615;  
CN 102099132 B 20140730; DK 2313215 T3 20120227; EP 2313215 A2 20110427; EP 2313215 B1 20111123; PL 2313215 T3 20120430;  
US 2011138868 A1 20110616; US 8789399 B2 20140729

DOCDB simple family (application)

**EP 2009058849 W 20090710;** AT 09780450 T 20090710; CN 200980126692 A 20090710; DK 09780450 T 20090710; EP 09780450 A 20090710;  
PL 09780450 T 20090710; US 200913003186 A 20090710