

Title (en)

METHOD AND DEVICE FOR STRAIGHTENING WIRE OR STRIP MATERIAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUM GERADERICHTEN VON DRAHT ODER BANDMATERIAL

Title (fr)

PROCÉDÉ ET DISPOSITIF DE REDRESSAGE D'UN MATÉRIAU EN FIL OU EN BANDE

Publication

EP 3930940 B1 20240515 (DE)

Application

EP 20754611 A 20200128

Priority

- AT 772019 A 20190228
- AT 2020000001 W 20200128

Abstract (en)

[origin: WO2020172694A2] The invention relates to a method for straightening wire or strip material by means of a straightening device comprising straightening rollers (3, 4, 6, 10) engaging on opposite sides of the passing-through material in an offset manner, of which, some are automatically activated according to a model which has been stochastically determined on the basis of input data of the material and data relating to the wire and the straightening device that is determined during the passing of the material through the straightening device, such that requirements of the straightening unit are met, wherein the position of at least one straightening roller is continuously adapted on the basis of said data detected during the passage through the straightening device, which data is representative of the target straightness, wherein (i), the size and direction of the forces acting on the straightening rollers and/or (ii) the temperature of the material before and after passing through the assembly of straightening rollers and/or (iii) the position of the material in relation to each of the straightening rollers are measured and the obtained measurement values are input into the model controlling the activation of the activatable straightening rollers.

IPC 8 full level

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

CPC (source: AT CN EP IL KR US)

B21C 51/00 (2013.01 - CN); **B21D 1/02** (2013.01 - CN EP IL KR US); **B21F 1/02** (2013.01 - AT CN EP IL US); **B21F 1/023** (2013.01 - KR)

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2020172694 A2 20200903; **WO 2020172694 A3 20201112**; AT 522234 A1 20200915; AT 522234 B1 20220515; BR 112021013352 A2 20210914; CA 3125331 A1 20200903; CN 113382812 A 20210910; CN 113382812 B 20230829; EP 3930940 A2 20220105; EP 3930940 B1 20240515; IL 285670 A 20211031; JP 2022521767 A 20220412; KR 20210132683 A 20211104; TW 202100262 A 20210101; TW I732455 B 20210701; US 2022143677 A1 20220512; ZA 202104559 B 20220727

DOCDB simple family (application)

AT 2020000001 W 20200128; AT 772019 A 20190228; BR 112021013352 A 20200128; CA 3125331 A 20200128; CN 202080011741 A 20200128; EP 20754611 A 20200128; IL 28567021 A 20210817; JP 2021549711 A 20200128; KR 20217030385 A 20200128; TW 109104502 A 20200213; US 202017310885 A 20200128; ZA 202104559 A 20210630