

Title (en)

METHOD FOR PRODUCING A ROLLED PRODUCT WITH A BOX PROFILE

Title (de)

VERFAHREN ZUM HERSTELLEN EINES WALZGUTS MIT KASTENPROFIL

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN PRODUIT LAMINÉ PRÉSENTANT UN PROFIL DE BOÎTE

Publication

EP 4355507 A1 20240424 (DE)

Application

EP 22733033 A 20220609

Priority

- EP 21179945 A 20210617
- EP 2022065629 W 20220609

Abstract (en)

[origin: WO2022263266A1] According to the invention, a control device (3) receives actual variables (I) of a flat rolled product (2) before rolling and target variables (Z) of the rolled product (2) after rolling in a rolling mill. The target variables (Z) comprise at least one profile value (C) of the rolled product (2), which relates to a predetermined spacing (a) from the edges of the rolled product (2). The control device (3) determines an ideal contour shape (ci) on the basis of the target variables (Z). On the basis of the actual variables (I) and the ideal contour shape (ci), said device uses a model (6) of the rolling mill to determine target values (COM) for manipulated variables for the roll stands (1) of the rolling mill. The device transfers the target values (COM) to the roll stands (1), such that the rolled product (2) is rolled in the rolling mill in consideration of the target values (COM). The control device (3) determines the target values (COM) such that an expected contour shape (ce) of the rolled product (2) after rolling is approximated as far as possible to the ideal contour shape (ci) exclusively or at least primarily in a central region (11) as viewed over the rolled product width (b). The central region (11) extends towards the edges of the rolled product (2) up to region boundaries (12) which have a greater spacing from the edges of the rolled product (2) than the predetermined spacing (a).

IPC 8 full level

B21B 37/28 (2006.01)

CPC (source: EP US)

B21B 37/28 (2013.01 - EP US); **B21B 2263/04** (2013.01 - EP US); **B21B 2263/10** (2013.01 - EP)

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4104944 A1 20221221; CN 117500617 A 20240202; EP 4355507 A1 20240424; US 2024216970 A1 20240704; WO 2022263266 A1 20221222

DOCDB simple family (application)

EP 21179945 A 20210617; CN 202280043083 A 20220609; EP 2022065629 W 20220609; EP 22733033 A 20220609; US 202218571070 A 20220609