

Title (en)
COMPLETE COMPENSATION OF ROLL ECCENTRICITIES

Title (de)
VOLLSTÄNDIGE KOMPENSATION VON WALZENEXZENTRIZITÄTEN

Title (fr)
COMPENSATION COMPLETE DES EXCENTRICITES DE CYLINDRE

Publication
EP 3419771 A1 20190102 (DE)

Application
EP 17704240 A 20170209

Priority
• EP 16156857 A 20160223
• EP 2017052813 W 20170209

Abstract (en)
[origin: WO2017144278A1] A roll stand for rolling a flat rolling material (3) made of metal has an upper set (U) of rolls and a lower set (L) of rolls with corresponding working rolls (1U, 1L) and support rolls (2U, 2L). The flat rolling material (3) is rolled during a normal operation. In this way, based on first and second variables (RUB, RLB, φ_{1UB} , φ_{1LB} , RUW, RLW, φ_{2UW} , φ_{2LW}) that are characteristic for an eccentricity of the support rolls (2U, 2L) and the working rolls (1U, 1L) of the roll stand according to an angular position (φ_{UB} , φ_{UW} , φ_{LB} , φ_{LW}) of at least one roll (1U, 1L, 2U, 2L) of the roll stand, a control device (4) continuously determines a compensation value (ε) that is dependent on the angular position (φ_{UB} , φ_{UW} , φ_{LB} , φ_{LW}). The control device (4) corrects a roll gap target value (s^*) for the roll stand with the compensation value (ε) and correspondingly acts on the roll frame. In this way, the angular positions (φ_{UB} , φ_{UW} , φ_{LB} , φ_{LW}) of only the working rolls (1U, 1L) or only the support rolls (2U, 2L) of the roll frame are detected. The angular positions (φ_{UB} , φ_{UW} , φ_{LB} , φ_{LW}) of the other rolls (1U, 1L, 2U, 2L) are determined from the detected angular positions (φ_{UB} , φ_{UW} , φ_{LB} , φ_{LW}). However, for the determined angular positions (φ_{UB} , φ_{UW} , φ_{LB} , φ_{LW}), the respective occurrence of a reference angular position is detected and supplied to the control device (4).

IPC 8 full level
B21B 37/66 (2006.01)

CPC (source: EP)
B21B 37/66 (2013.01); **B21B 37/58** (2013.01)

Citation (search report)
See references of WO 2017144278A1

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

DOCDB simple family (publication)
EP 3210682 A1 20170830; CN 109070164 A 20181221; CN 109070164 B 20210507; EP 3419771 A1 20190102; EP 3419771 B1 20190529; EP 3419771 B2 20221130; WO 2017144278 A1 20170831

DOCDB simple family (application)
EP 16156857 A 20160223; CN 201780013068 A 20170209; EP 17704240 A 20170209; EP 2017052813 W 20170209