

Title (en)  
METHOD FOR INCREASING THE PROCESS STABILITY, PARTICULARLY THE ABSOLUTE THICKNESS PRECISION AND THE INSTALLATION SAFETY DURING THE HOT ROLLING OF STEEL OR NONFERROUS MATERIALS

Title (de)  
VERFAHREN ZUM ERHÖHEN DER PROZESSSTABILITÄT, INSBESONDERE DER ABSOLUTEN DICKENGENAUIGKEIT UND DER ANLAGENSICHERHEIT, BEIM WARMWALZEN VON STAHL- ODER NE-WERKSTOFFEN

Title (fr)  
PROCEDE POUR AUGMENTER LA STABILITE AU TRAITEMENT, NOTAMMENT LA PRECISION D'EPAISSEUR ABSOLUE ET LA SECURITE D'INSTALLATION, LORS DU LAMINAGE A CHAUD DE MATERIAUX EN ACIER OU EN METAL NON FERREUX

Publication  
**EP 1761346 B1 20071031 (DE)**

Application  
**EP 05700942 A 20050114**

Priority  
• EP 2005000348 W 20050114  
• DE 102004003514 A 20040123

Abstract (en)  
[origin: WO2005070575A1] The invention relates to a method for increasing the process stability, particularly the absolute thickness precision and the installation safety during the hot rolling of steel or nonferrous materials, with small degrees of deformation (f) or no reductions while taking the high-temperature limit of elasticity (Re) into account when calculating the set rolling force (FW) and the respective setting position (s). The process stability can be increased with regard to the precision of the yield stress (kf,R) and the set rolling force (FW) at small degrees of deformation (f) or small reductions, during which the high-temperature limit of elasticity (Re) is determined according to the deformation temperature (T) and/or the deformation speed (phip) and is integrated into the function of the yield stress (kf) for determining the set rolling force (FW) via the relation (2) )  $Re = a + e \cdot b_1 + b_2 \cdot T$ ,  $phip < C$ , in which: Re represents the high-temperature limit of elasticity; T represents the deformation temperature; phip represents the deformation speed, and; a, b, c represent coefficients.

IPC 8 full level  
**B21B 37/00** (2006.01); **B21B 37/16** (2006.01)

CPC (source: EP KR US)  
**B21B 37/00** (2013.01 - EP KR US); **B21B 37/16** (2013.01 - EP KR US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005070575 A1 20050804**; AT E376896 T1 20071115; AU 2005205889 A1 20050804; AU 2005205889 B2 20100325; BR PI0507045 A 20070612; CA 2554131 A1 20050804; CA 2554131 C 20110927; CN 100479942 C 20090422; CN 1909986 A 20070207; DE 102004003514 A1 20050811; DE 502005001843 D1 20071213; EP 1761346 A1 20070314; EP 1761346 B1 20071031; ES 2298994 T3 20080516; JP 2007534493 A 20071129; KR 101140577 B1 20120502; KR 20060126755 A 20061208; RU 2006130369 A 20080227; RU 2408445 C2 20110110; TW 200600215 A 20060101; TW I323197 B 20100411; UA 86220 C2 20090410; US 2007256464 A1 20071108; US 7444847 B2 20081104

DOCDB simple family (application)  
**EP 2005000348 W 20050114**; AT 05700942 T 20050114; AU 2005205889 A 20050114; BR PI0507045 A 20050114; CA 2554131 A 20050114; CN 200580003088 A 20050114; DE 102004003514 A 20040123; DE 502005001843 T 20050114; EP 05700942 A 20050114; ES 05700942 T 20050114; JP 2006549985 A 20050114; KR 20067015613 A 20050114; RU 2006130369 A 20050114; TW 94100944 A 20050113; UA A200609279 A 20050114; US 58698905 A 20050114