

Title (en)

Method for eliminating of gutter curvatures in metal sheets

Title (de)

Verfahren zum Beseitigen von Querkrümmungen in Metallbändern

Title (fr)

Procédé pour éliminer des bombements transversaux dans des tôles

Publication

EP 1275446 B2 20130904 (DE)

Application

EP 02004606 A 20020228

Priority

DE 10124836 A 20010522

Abstract (en)

[origin: US2002174699A1] Crossbow in metal strip in a strip processing line is eliminated immediately upstream of a strip processing device by measuring the crossbow and controlling response to the measured value penetration depth of a correcting roller into strip while the latter is supported by a pair of support rolls. The device is provided immediately upstream of the processing unit.

IPC 8 full level

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

CPC (source: EP US)

B21D 1/02 (2013.01 - EP US)

Citation (opposition)

Opponent :

- AT 368044 B 19820825 - VOEST ALPINE AG [AT]
- DE 19917561 C1 20001130 - SUNDWIG GMBH [DE], et al
- DE 19520541 C2 19990114 - BWG BERGWERK WALZWERK [DE]
- DE 3513831 C2 19890629
- DE 3414486 C2 19940601 - WANZKE MANFRED [DE]
- DE 19509067 A1 19960919 - BWG BERGWERK WALZWERK [DE]
- EP 0508475 B1 19950215 - SUMITOMO HEAVY INDUSTRIES [JP]
- EP 0865839 A2 19980923 - BETR FORSCH INST ANGEW FORSCH [DE]
- G. MÜCKE, M. KOCH, E. NEUSCHÜTZ: "Vermeidung von Oberflächenbeschädigungen beim Blankglühen von Edelstahlbändern", June 1999, BETRIEBSFORSCHUNGSINSTITUT VDEH - INSTITUT FÜR ANGEWANDTE FORSCHUNG GMBH
- "BFI Betriebsforschungsinstitut", 1999

Cited by

US7530250B2; US8291738B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

US 2002174699 A1 20021128; AT E409531 T1 20081015; DE 10124836 A1 20021219; DE 10124836 B4 20040826; DE 10124836 C5 20070719; DE 50212825 D1 20081113; EP 1275446 A2 20030115; EP 1275446 A3 20040331; EP 1275446 B1 20081001; EP 1275446 B2 20130904; ES 2315323 T3 20090401; ES 2315323 T5 20131114

DOCDB simple family (application)

US 13160702 A 20020424; AT 02004606 T 20020228; DE 10124836 A 20010522; DE 50212825 T 20020228; EP 02004606 A 20020228; ES 02004606 T 20020228