Title (en)

METHOD AND CONTROLLING DEVICE TO REGULATE THE DISTRIBUTION OF TENSILE STRENGTH IN THE COLD ROLLING OF STRIPS

Publication

EP 0108379 B1 19890802 (DE)

Application

EP 83110911 A 19831102

Priority

DE 3240602 A 19821103

Abstract (en)

[origin: EP0108379A2] 1. Method for the control of tensile stress distribution in the cold rolling of strips (1), the tensile stress distribution (sigma) being determined at least on one side of the mill stand (10) from the strip thickness and the values measured by load transducers spaced in axial direction over the roll width, and with the provision of a controller (25, 26) for the adjustment of the tensile stress distribution as well as of derivative final controlling elements for the roll gap dependent on the former and acting in axial direction of the work rolls (2), characterized in that in mill stands (10) driven in one direction the tensile stress distribution (sigma A , sigma E) is determined on the entry side and on the delivery side of the mill stand (10) on the basis of tensile force measurements distributed over the roll width and of the strip thickness, and that the differential values (delta sigma) of same are formed from the tensile stresses distributed over the roll width, and that said differential values (delta sigma) are adjusted by means of position setpoint selections of the controller (25, 26) acting on the final controlling elements in such a manner that they are as far as possible differentially constant over the roll width, and are thus below a maximum value, above which a non-uniform material flow occurs and causes a backward slip which leads to material overlaps.

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CPC (source: EP)

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Cited by

US8365562B2; CN113083907A; US5365761A; CN104646431A; EP0173045A1; AU2005297538B2; AU2005297538B8; AT501314B1; DE102008015828A1; US8205474B2; US7849722B2; US7963136B2; WO9118688A1; WO2006042606A1; TWI418420B

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