Title (en)

METHOD FOR PRODUCING A HOT-ROLLED STRIP BY MEANS OF STRIP CASTING, WHEREIN THE MATERIAL PROPERTIES CAN BE ADJUSTED OVER THE STRIP CROSS-SECTION

Title (de)

VERFAHREN ZUM ERZEUGEN VON WARMBAND MITTELS BANDGIESSEN MIT ÜBER DEN BANDQUERSCHNITT EINSTELLBAREN WERKSTOFFEIGENSCHAFTEN

Title (fr)

PROCÉDÉ DE PRODUCTION DE FEUILLARDS À CHAUD PAR COULÉE DE BANDES MINCES AUX CARACTÉRISTIQUES DE MATÉRIAU RÉGLABLES SUR LA SECTION TRANSVERSALE DE LA BANDE

Publication

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Application

EP 10749463 A 20100714

Priority

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Abstract (en)

[origin: DE102009038974B3] The method for producing steel hot strip with material characteristics adjustable over the band cross-section, comprises applying a steel melt (8) by a casting groove on a running casting band (5) of a horizontal strip casting plant that is hardened to a strip with a thickness of 6-20 mm. The strip is subjected to hot rolling process after the hardening. The steel melt influences a gas- or plasma beam consisting of metallic and/or non-metallic element influencing the characteristics of the hot band. The method for producing steel hot strip with material characteristics adjustable over the band cross-section, comprises applying a steel melt (8) by a casting groove on a running casting band (5) of a horizontal strip casting plant that is hardened to a strip with a thickness of 6-20 mm. The strip is subjected to hot rolling process after the hardening. The steel melt influences a gas- or plasma beam consisting of metallic and/or non-metallic element influencing the characteristics of the hot band and the concentration of the element applied over the gas- or plasma beam in the melt is adjusted through variation of the influential kinetic energy of gas- or plasma beam, the gas partial pressure and/or the temperature. The gas- or plasma radiations are associated to the solid particles. The gas used for the gas radiation is inert and/or reduced or is a mixed gas from inert gas as carrier and a reducing gas. The gas is cold or hot. The material characteristics are symmetrically or asymmetrically adjusted over the width of the band or are variably adjusted over the total length of the band. The form of the casting band edge in the course of the stiffness is influenced through subjecting fluid to casting band edge area with the gas- or plasma beam.

IPC 8 full level

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CPC (source: EP KR US)

B21B 3/00 (2013.01 - KR); **B22D 11/045** (2013.01 - KR); **B22D 11/0631** (2013.01 - EP KR US); **B22D 11/117** (2013.01 - KR)

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