Title (en)

HOT-ROLLING PROCESS AND HOT-ROLLING MILL FOR METAL STRIP.

Title (de)

WARMWALZVERFAHREN UND WARMWALZWERK FÜR METALLBAND.

Title (fr)

PROCEDE DE LAMINAGE A CHAUD ET LAMINOIR POUR FEUILLARD METALLIQUE.

Publication

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Application

EP 92921087 A 19921008

Priority

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- EP 9202314 W 19921008

Abstract (en)

[origin: US5694799A] PCT No. PCT/EP92/02314 Sec. 371 Date May 10, 1994 Sec. 102(e) Date May 10, 1994 PCT Filed Oct. 8, 1992 PCT Pub. No. WO93/07974 PCT Pub. Date Apr. 29, 1993The invention is directed to a hot-rolling process and a hot-rolling mill for metal strips (5) having one or more roll stands with work rolls (1, 2). In order to prevent surface defects on the work rolls (1, 2), a coolant liquid is sprayed on the entry side in a narrow region extending immediately in front of the roll gap exclusively by a series of flat jet nozzles in such a way that their core jets primarily strike the surface of the work rolls or are directed into the roll gap for direct cooling and in that the entering metal strip is acted upon at the same time by the same coolant liquid for protecting the surfaces of the rolls from the radiated heat of the metal strip. The spraying of the coolant liquid is regulated in such a way that the metal strip is cooled only in a very narrow outer zone. In so doing, the temperature at the surface of the work rolls (1, 2) is adjusted in such a way that it lies below the boiling point of the coolant liquid at least immediately in front of the roll gap.

Abstract (fr)

L'invention concerne un procédé de laminage à chaud et un laminoir pour feuillard métallique (5) comprenant une ou plusieurs cages de laminoir équipées de cylindres de travail (1, 2). Pour éviter des défauts de surface sur les cylindres de travail (1, 2), un liquide de refroidissement est projeté dans une zone étroite, directement devant l'emprise du laminoir, le dit liquide se déposant à la fois sur les enveloppes des cylindres (1, 2) et sur le feuillard (5). La température à la surface des enveloppes des cylindres de travail (1, 2) est alors réglée de manière à atteindre, au moins directement devant l'emprise, une température qui soit inférieure à la température d'ébullition du liquide de refroidissement.

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CPC (source: EP US)

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