

Title (en)

Cold-rolling mill, tandem rolling system, reversing rolling system, modification method of rolling system, and operating method of cold-rolling mill

Title (de)

Kaltwalzwerk, Tandemwalzsystem, Umkehrwalzsystem, Modifikationsverfahren des Walzsystems und Betriebsverfahren des Kaltwalzwerks

Title (fr)

Laminoin à froid, système de laminage en tandem, système de roulement d'inversion, procédé de modification d'un système de roulement et procédé de fonctionnement d'un laminoin à froid

Publication

EP 2572808 A1 20130327 (EN)

Application

EP 12184124 A 20120912

Priority

JP 2011071391 W 20110920

Abstract (en)

By reducing the work roll in diameter, rolling of a harder steel strip than ever and rolling of a steel strip of the same hardness as before at a higher reduction ratio can be performed, while preventing decrease in productivity due to use of such a small-diameter work roll mill as in the cluster type rolling mill. A cold-rolling mill 51 for rolling a metal strip 1 of minimum width not less than 600 mm and maximum width not less than 1,500 mm but not greater than 1,900 mm comprises a pair of upper and lower work rolls 2 for rolling the steel strip 1 to be rolled; a pair of upper and lower intermediate rolls 3 supporting the work rolls 2, respectively; a pair of upper and lower buck-up rolls 4 supporting the intermediate rolls 3, respectively; an axial direction roll shifting device 23 for each of the intermediate rolls 3; and bending devices 10, 11 for each of the work rolls 2 and the intermediate rolls 3. The work rolls 2 each have a diameter not less than 300 mm but not greater than 400 mm, and the intermediate roll 3 each have a diameter not less than 560 mm but not greater than 690 mm.

IPC 8 full level

B21B 13/14 (2006.01); **B21B 29/00** (2006.01)

CPC (source: EP KR)

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Citation (applicant)

- JP H0334928 B2 19910524
- "Textbook of the 101st Lecture on Plastic Working", JAPAN SOCIETY FOR TECHNOLOGY OF PLASTICITY, article "Basics and Application of Strip Rolling - Crown and Flatness", pages: 62

Citation (search report)

- [XYI] DE 10208389 A1 20030626 - HITACHI LTD [JP]
- [Y] JP H11179408 A 19990706 - HITACHI LTD
- [Y] EP 0154896 A2 19850918 - SCHLOEMANN SIEMAG AG [DE]
- [Y] JP S59185508 A 19841022 - HITACHI LTD

Cited by

EP3034187A1; IT202200006743A1; US2022118492A1; US10421106B2; EP3906122B1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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DOCDB simple family (application)

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