Title (en)

HIGH MANGANESE NITROGEN-CONTAINING STEEL SHEET HAVING HIGH STRENGTH AND HIGH DUCTILITY, AND METHOD FOR MANUFACTURING SAME

Title (de)

STAHLBLECH MIT HOHEM MANGAN- UND STICKSTOFFANTEIL SOWIE HOHER FESTIGKEIT UND LEITFÄHIGKEIT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TÔLE D'ACIER CONTENANT DE L'AZOTE À HAUTE TENEUR EN MANGANÈSE PRÉSENTANT UNE RÉSISTANCE ET UNE DUCTILITÉ ÉLEVÉES, ET SON PROCÉDÉ DE FABRICATION

Publication

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Application

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Abstract (en)

[origin: EP2431492A2] Provided is a high manganese nitrogen-containing steel sheet. The high manganese nitrogen-containing steel sheet according to the present invention comprises 0.5 to 1.0 wt % of carbon, 10 to 20 wt % of manganese, 0.02 to 0.3 wt % of nitrogen, with a remainder of Fe and unavoidable impurities. The high manganese nitrogen-containing steel sheet according to the present invention produces an austenite phase at room temperature, in which the stacking fault energy is effectively controlled by adding chrome and nitrogen. Accordingly, the high manganese nitrogen-containing steel sheet of the present invention produces a mechanical twin during the plastic deformation of the steel sheet, thereby increasing the work hardening rate, tensile strength, and workability.

IPC 8 full level

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