Title (en)

FREE-CUTTING STEEL EXCELLENT IN MANUFACTURABILITY

Title (de)

AUTOMATENSTAHL MIT HERVORRAGENDER FERTIGUNGSFREUNDLICHKEIT

Title (fr)

ACIER DE DÉCOLLETAGE AVEC UNE EXCELLENTE APTITUDE À LA FABRICATION

Publication

EP 2096186 A1 20090902 (EN)

Application

EP 07849980 A 20071127

Priority

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Abstract (en)

The present invention provides machining steel superior in machinability, accompanied with little melt loss of plate refractories of continuous casting sliding nozzles, and superior in ductility in hot rolling and able to prevent deterioration of the surface properties due to hot rolling, containing, by mass %, C: 0.005 to 0.2%, Si: 0.001 to 0.5%, Mn: 0.3 to 3.0%, P: 0.001 to 0.2%, S: 0.30 to 0.60%, B: 0.0003 to 0.015%, O: 0.005 to 0.012%, Ca: 0.0001 to 0.0010%, and Al#¤0.01%, having an N content satisfying N#¥0.0020% and 1.3×B-0.0100#¤N#¤1.3×B+0.003, and having a balance of Fe and unavoidable impurities, wherein, regarding the MnO in the steel, in a cross-section of the steel material perpendicular to the rolling direction, the area of MnO of a circle equivalent diameter of 0.5 μm or more being 15% or less of the area of the total Mn-based inclusions.

IPC 8 full level

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CPC (source: EP KR US)

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