

Title (en)

Steel excellent in toughness of weld heat-affected zone

Title (de)

Stahl mit durch Schweißen beeinflusster Zone mit ausgezeichneter Zähigkeit

Title (fr)

Acier présentant une excellente ténacité de la zone affectée thermiquement par soudage

Publication

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Application

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- JP 2000033242 A 20000210
- JP 2000068210 A 20000313

Abstract (en)

[origin: EP1262571A1] The present invention realizes excellent HAZ toughness by further suppressing the coarsening of austenite grains when they are heated for a long time at a high temperature in order to remarkably improve HAZ properties. The present invention is a steel excellent in the toughness of a weld heat-affected zone: having a specific chemical composition; satisfying the expression $0 \leq EN \leq 0.002$ regarding the EN value expressed by an equivalent equation comprising (%N), (%Ti) and (%B); and containing oxide particles 0.005 to 2.0 μm , preferably 0.1 to 2.0 μm , in circle-equivalent diameter, which oxide particles contain at least Ca, Al and O in their composition and, in the mass percentage of the elements excluding O, contain Ca at 5% or more and Al at 5% or more with the balance consisting of other deoxidizing elements and/or unavoidable impurities, with the density of the oxide particles being 100 to 3,000 pieces/mm². <IMAGE>

IPC 8 full level

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CPC (source: EP KR)

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