

Title (en)

STEEL EXCELLING IN TOUGHNESS AT REGION AFFECTED BY WELDING HEAT

Title (de)

STAHL MIT HERVORRAGENDER HÄRTE DES DURCH SCHWEISSUNGSHITZE BETROFFENEN BEREICHS

Title (fr)

ACIER EXCELLANT PAR SA DURETÉ DANS LES ZONES AFFECTÉES PAR LA CHALEUR DE LA SOUDURE

Publication

EP 2060643 A1 20090520 (EN)

Application

EP 06843367 A 20061220

Priority

JP 2006325984 W 20061220

Abstract (en)

The present invention is a steel excellent in toughness of a weld heat affected zone characterized by containing, by mass%, C: 0.02 to 0.06%, Si: 0.05 to 0.30%, Mn: 1.7 to 2.7%, P: 0.015% or less, S: 0.010% or less, Ti: 0.005 to 0.015%, O: 0.0010 to 0.0045, and N: 0.0020 to 0.0060% and comprising a balance of iron and unavoidable impurities, having an amount of intermixture of impurities limited to Al: 0.004% or less, Nb: 0.003% or less, and V: 0.030% or less, and having a CeH represented by formula (A) in the range of 0.04 or less: $CeH = C + 1/4 \# \text{Si} - 1/24 \# \text{Mn} + 1/48 \# \text{Cu} + 1/32 \# \text{Ni} + 1/0.4 \# \text{Nb} + 1/2 \# \text{V}$ where, C, Si, Mn, Cu, Ni, Nb, and V show steel compositions (mass%).

IPC 8 full level

C22C 38/00 (2006.01); **C21D 8/02** (2006.01); **C22C 38/14** (2006.01); **C22C 38/16** (2006.01)

CPC (source: EP KR)

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Cited by

US10500817B2; EP2400041A4; US8668784B2; US8920713B2

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