

Title (en)

LOW-YIELD RATIO AND HIGH-STRENGTH STEEL HAVING EXCELLENT STRESS CORROSION CRACKING RESISTANCE AND LOW TEMPERATURE TOUGHNESS

Title (de)

HOCHFESTE STAHLPLATTE MIT NIEDRIGER STRECKGRENZE UND AUSGEZEICHNETER SPANNUNGSRISSKORROSIONSBESTÄNDIGKEIT UND NIEDRIGER TEMPERATURZÄHIGKEIT

Title (fr)

ACIER À HAUTE RÉSISTANCE ET À FAIBLE TAUX D'ÉLASTICITÉ PRÉSENTANT UNE EXCELLENTE RÉSISTANCE À LA FISSURATION PAR CORROSION SOUS CONTRAINTE ET UNE EXCELLENTE TÉNACITÉ À BASSE TEMPÉRATURE

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Application

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Abstract (en)

An aspect of the present invention relates to a low yield ratio and high-strength steel having excellent stress corrosion cracking resistance and low temperature toughness, the steel comprising, by weight, 0.02-0.10% of carbon (C), 0.5-2.0% of manganese (Mn), 0.05-0.5% of silicon (Si), 0.05-1.0% of nickel (Ni), 0.005-0.1% of titanium (Ti), 0.005-0.5% of aluminum (Al), 0.005% or less of niobium (Nb), 0.015% or less of phosphorus (P), 0.015% or less of sulfur (S), and the balanced amount of Fe and inevitable impurities, the microstructure of which comprises: by area, 60% or more of acicular ferrite and a balanced amount of one or more phases of bainite, polygonal ferrite and martensite-austenite constituent (MA).

IPC 8 full level

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