

Title (en)
STEEL FOR WELDED STRUCTURE PURPOSE EXHIBITING NO DEPENDENCE OF HAZ TOUGHNESS ON HEAT INPUT AND METHOD FOR PRODUCING THE SAME

Title (de)
STAHL FÜR GESCHWEISSTE STRUKTUREN, WOBEI DIE ZÄHIGKEIT UNABHÄNGIG VOM EINBRINGEN VON WÄRMEIST, UND HERSTELLUNGSVERFAHREN

Title (fr)
ACIER POUR STRUCTURE SOUDEE DONT LA TENACITE DE ZONE THERMIQUEMENT AFFECTEE NE DEPEND PAS D'UN APPORT DE CHALEUR, ET PROCEDE DE PRODUCTION ASSOCIE

Publication
EP 1143023 A1 20011010 (EN)

Application
EP 00966448 A 20001012

Priority
• JP 0007091 W 20001012
• JP 28941299 A 19991012

Abstract (en)
The present invention relates to a steel for a welded structure with excellent HAZ toughness, containing, in terms of wt%, C: 0.01 to 0.2%, Si: 0.02 to 0.5%, Mn: 0.3 to 2%, P: 0.03% or less, S: 0.0001 to 0.03%, Al: 0.0005 to 0.05%, Ti: 0.003 to 0.05%, Mg: 0.0001 to 0.01% and O: 0.0001 to 0.008%, with the balance consisting of Fe and unavoidable impurities; and having particles dispersed in the steel at an average particle interval of 30 to 100 μ m, the particles being formed by precipitating either any one of sulfides and nitrides singly or the both thereof in combination using Mg contained oxides with the particle sizes of 0.2 to 5 μ m as their nuclei, or particles dispersed in the steel at an average particle interval of 30 μ m or less, the particles being formed by precipitating either any one of sulfides and nitrides singly or the both thereof in combination using Mg contained oxides with the particle sizes of 0.005 to less than 0.2 μ m as their nuclei. <IMAGE>

IPC 1-7
C22C 38/00; **C21C 7/00**

IPC 8 full level
C21C 7/06 (2006.01); **C21C 7/064** (2006.01); **C22C 38/00** (2006.01); **C22C 38/04** (2006.01); **C22C 38/14** (2006.01)

CPC (source: EP KR)
C21C 7/06 (2013.01 - EP); **C21C 7/064** (2013.01 - EP); **C22C 38/002** (2013.01 - EP); **C22C 38/04** (2013.01 - EP KR); **C22C 38/14** (2013.01 - EP)

Cited by
EP1637618A4; EP2305850A4; EP2192205A1; EP1533392A4; EP2218800A4; EP3133181A4; EP2385149A4; EP2400041A4; US10280476B2; US8303734B2; WO2008089894A1; US8668784B2; US8920713B2; US8449741B2; US8557176B2; US9403242B2; US8361248B2; US8182740B2; US8192683B2

Designated contracting state (EPC)
DE FR

DOCDB simple family (publication)
EP 1143023 A1 20011010; **EP 1143023 A4 20030102**; **EP 1143023 B1 20050601**; DE 60020522 D1 20050707; DE 60020522 T2 20051124; JP 3802810 B2 20060726; KR 100430067 B1 20040503; KR 20010080751 A 20010822; WO 0127342 A1 20010419

DOCDB simple family (application)
EP 00966448 A 20001012; DE 60020522 T 20001012; JP 0007091 W 20001012; JP 2001529471 A 20001012; KR 20017007269 A 20010611