Title (en)

ABRASION-RESISTANT STEEL PLATE OR SHEET WITH EXCELLENT WELD TOUGHNESS AND DELAYED FRACTURE RESISTANCE

Title (de)

ABRIEBFESTE STAHLPLATTE ODER BLECH MIT EXZELLENTER SCHWEISSFESTIGKEIT UND VERZÖGERTER BRUCHFESTIGKEIT

Title (fr)

PLAQUE OU TÔLE D'ACIER RÉSISTANT À L'ABRASION AVEC D'EXCELLENTES PROPRIÉTÉS EN TERMES DE TÉNACITÉ D'UNE SOUDURE ET DE RÉSISTANCE À LA RUPTURE DIFFÉRÉE

Publication

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Application

EP 11801027 A 20110629

Priority

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- JP 2010149649 A 20100630
- JP 2011065416 W 20110629

Abstract (en)

[origin: EP2589676A1] An abrasion resistant steel plate which is excellent in weld toughness and delayed fracture resistance and is preferably used in construction machines, industrial machines and the like is provided. To be more specific, the composition of the steel plate contains by mass % 0.20 to 0.30% C, 0.05 to 1.0% Si, 0.40 to 1.2% Mn, 0.010% or less P, 0.005% or less S, 0.40 to 1.5% Cr, 0.005 to 0.025% Nb, 0.005 to 0.03% Ti, 0.1% or less Al and 0.01% or less N, and further contains one, two or more kinds of components selected from a group consisting of Mo, W, B, Cu, Ni, V, REM, Ca and Mg when necessary, wherein DI* (DI* = 33.85 × (0.1×C) 0.5 × (0.7×Si+1) × (3.33×Mn+1) × (0.35×Cu+1) × (0.36×Ni+1) × (2.16×Cr+1) × (3×Mo+1) × (1.75×V+1) × (1.5×W+1)) is 45 to 180, C+Mn/4-Cr/3+10P#¤0.47, and a base phase of the microstructure is formed of martensite.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/20** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/32** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP KR US)

C21D 8/02 (2013.01 - EP KR US); **C21D 9/46** (2013.01 - EP KR US); **C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/002** (2013.01 - EP KR US); **C22C 38/005** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/12** (2013.01 - US); **C22C 38/20** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP KR US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - KR US); **C22C 38/48** (2013.01 - EP KR US); **C22C 38/50** (2013.01 - EP KR US); **C22C 38/54** (2013.01 - EP KR US); C21D 2211/008 (2013.01 - EP US)

Cited by

CN103952645A; EP2789699A1; EP3098331A4; EP2695960A4; EP2692890A4; EP2881486A4; US10662493B2; US9938599B2; US10253385B2; US9879334B2; US9797033B2; US9982331B2; US10577671B2; WO2015028557A1

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