

Title (en)

ABRASION-RESISTANT STEEL SHEET HAVING EXCELLENT PROCESSABILITY, AND METHOD FOR PRODUCTION THEREOF

Title (de)

ABRIEBFESTES STAHLBLECH MIT HERVORRAGENDER VERARBEITBARKEIT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TÔLE D'ACIER RÉSISTANTE À L'ABRASION EXTRÊMEMENT FACILE À METTRE EN UVRE ET SON PROCÉDÉ DE PRODUCTION

Publication

EP 2154262 B1 20180307 (EN)

Application

EP 08764952 A 20080526

Priority

- JP 2008060096 W 20080526
- JP 2007142003 A 20070529
- JP 2008113529 A 20080424

Abstract (en)

[origin: EP2154262A1] An abrasion resistant steel excellent in bending formability and suitable for members, e.g., power shovels, which come into contact with earth and sand, and a production method thereof are provided. Specifically, the steel contains, on a percent by mass basis, 0.05% to 0.35% of C, 0.05% to 1.0% of Si, 0.1% to 2.0% of Mn, 0.1% to 1.2% of Ti, 0.1% or less of Al, at least one element of 0.1% to 1.0% of Cu, 0.1% to 2.0% of Ni, 0.1% to 1.0% of Cr, 0.05% to 1.0% of Mo, 0.05% to 1.0% of W, and 0.0003% to 0.0030% of B, if necessary at least one element of 0.005% to 1.0% of Nb and 0.005% to 1.0% of V, and the remainder including Fe and incidental impurities, where DI* represented by the following formula is less than 60. $DI^* = 33.85 \times 0.1 \times C^* \times 0.5 \times 0.7 \times Si + 1 \times 3.33 \times Mn + 1 \times 0.35 \times Cu + 1 \times 0.36 \times Ni + 1 \times 2.16 \times Cr + 1 \times 3 \times Mo^* + 1 \times 1.5 \times W^* + 1$ where $C^* = C - 1/4 \times (Ti - 48/14N)$, $Mo^* = Mo \times (1 - 0.5 \times (Ti - 48/14N))$, and $W^* = W \times (1 - 0.5 \times (Ti - 48/14N))$.

IPC 8 full level

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CPC (source: EP KR US)

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Cited by

EP2657361A4; FR2960883A1; AU2011260493B2; EA023196B1; US10662493B2; US9273383B2; WO2011151186A1

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