

Title (en)
HIGH MANGANESE HIGH STRENGTH STEEL SHEETS WITH EXCELLENT CRASHWORTHINESS, AND METHOD FOR MANUFACTURING OF IT

Title (de)
HOCHFESTE STAHLBLECHE MIT HOHEM MANGANANTEIL MIT HERVORRAGENDER AUFPRALLTAUGLICHKEIT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
TÔLE D'ACIER À HAUTE RÉSISTANCE ET À REMARQUABLE RÉSISTANCE À L'IMPACT, ET SON PROCÉDÉ DE FABRICATION

Publication
EP 2097548 A4 20100224 (EN)

Application
EP 07851742 A 20071224

Priority

- KR 2007006780 W 20071224
- KR 20060135658 A 20061227

Abstract (en)
[origin: WO2008078940A1] There are provided a high-workability high strength steel sheet with excellent workability due to the high elongation and excellent crashworthiness due to the high yield strength, and a method for manufacturing of it. The high manganese steel sheet includes, by weight: carbon (C): 0.2 to 1.5%, manganese (Mn): 10 to 25%, aluminum (Al): 0.01 to 3.0%, phosphorus (P) 0.03% or less, sulfur (S): 0.03% or less, nitrogen (N): 0.040% or less, at least one selected from the group consisting of silicon (Si): 0.02 to 2.5%, titanium (Ti): 0.01 to 0.10% and niobium (Nb): 0.01 to 0.10%, and the balance of Fe and other inevitable impurities. The high manganese steel sheet may be a hot-rolled steel sheet, a cold-rolled steel sheet, or a plated steel sheet, and is suitable for elaborate internal sheets as well as structural members of a car body since it has press workability due to the high elongation and high strain hardening index. Also, the high manganese steel sheet may be used for parts such as a front side member of an automobile since, among its characteristics, the steel sheet has an excellent impact absorbing ability.

IPC 8 full level
C22C 38/04 (2006.01)

CPC (source: EP KR US)
C21D 8/02 (2013.01 - KR); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP US)

Citation (search report)

- [XP] WO 2007075006 A1 20070705 - POSCO [KR], et al
- [A] WO 2005019483 A1 20050303 - USINOR [FR], et al
- [A] WO 2006082104 A1 20060810 - CORUS STAAL BV [NL], et al
- See references of WO 2008078940A1

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DE FR SK

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DOCDB simple family (application)
KR 2007006780 W 20071224; CN 200780015625 A 20071224; EP 07851742 A 20071224; JP 2009523729 A 20071224; KR 20060135658 A 20061227; US 29895907 A 20071224