

Title (en)
HIGH-STRENGTH STEEL SHEET AND METHOD FOR PRODUCTION THEREOF

Title (de)
HOCHFESTES STAHLBLECH UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
FEUILLE D'ACIER DE RÉSISTANCE ÉLEVÉE ET SON PROCÉDÉ DE FABRICATION

Publication
EP 2327810 B1 20190227 (EN)

Application
EP 09813166 A 20090908

Priority
• JP 2009065981 W 20090908
• JP 2008232437 A 20080910

Abstract (en)
[origin: EP2327810A1] A high strength steel sheet having excellent workability and a tensile strength (TS) of 980 MPa or more is provided. Regarding composition, on a percent by mass basis, C: 0.17% or more, and 0.73% or less, Si: 3.0% or less, Mn: 0.5% or more, and 3.0% or less, P: 0.1% or less, S: 0.07% or less, Al: 3.0% or less, and N: 0.010% or less are included while it is satisfied that Si + Al is 0.7% or more, and the remainder includes Fe and incidental impurities, wherein regarding the steel sheet microstructure, it is specified that the area percentage of a total amount of lower bainite and whole martensite is 10% or more, and 90% or less relative to the whole steel sheet microstructure, the amount of retained austenite is 5% or more, and 50% or less, the area percentage of bainitic ferrite in upper bainite is 5% or more relative to the whole steel sheet microstructure, as-quenched martensite is 75% or less of the total amount of lower bainite and whole martensite, the area percentage of polygonal ferrite is 10% or less (including 0%), and the average amount of C in the above-described retained austenite is 0.70% or more.

IPC 8 full level
C22C 38/06 (2006.01); **C21D 9/46** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR US)
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Cited by
EP4283007A4; GB2491958A; EP2821517A4; RU2680043C2; EP2824210A4; EP3309273A4; US2015165727A1; US9821534B2; EP2690184A1; US9745639B2; US10745775B2; US11136656B2; US10106874B2; US10472692B2; WO2020151855A1; US10844455B2; US11692235B2; US10260133B2; US11739392B2; US9631250B2; US10301700B2; WO2014016421A1; WO2016187577A1; WO2016001705A1; WO2016001892A3; WO2019154819A1; US11884990B2

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