

Title (en)
High strength cold-rolled steel sheet and method for manufacturing the same

Title (de)
Hochfestes kaltgewalztes Stahlblech und Herstellungsverfahren dafür

Title (fr)
Plaque d'acier laminé à froid haute résistance et son procédé de fabrication

Publication
EP 2017363 A3 20090805 (EN)

Application
EP 08159197 A 20030604

Priority
• EP 03736017 A 20030604
• JP 2002173668 A 20020614
• JP 2002173669 A 20020614

Abstract (en)
[origin: EP1514951A1] The present invention provides a high strength cold-rolled steel sheet, consisting essentially of, by mass%, 0.04 to 0.10% C, 0.5 to 1.5% Si, 1.8 to 3% Mn, 0.02% or less P, 0.01% or less S, 0.01 to 0.1% Sol. Al, 0.005% or less N, and the balance being iron and inevitable impurities, and having a structure which substantially comprises ferrite phase and martensite phase. Since the high strength cold-rolled steel sheet of the invention has ductility in which an elongation is 18% or more, excellent stretch-flangeability in which a hole-expanding ratio is 60% or more and a tensile strength of 780 MPa or more, it is favorable for use in a structural member of automobile.

IPC 8 full level
C22C 38/02 (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C21D 8/02** (2006.01)

CPC (source: EP US)
C22C 38/02 (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C21D 8/0236** (2013.01 - EP US); **C21D 2211/005** (2013.01 - EP US); **C21D 2211/008** (2013.01 - EP US)

Citation (search report)
• [E] EP 1512762 A1 20050309 - JFE STEEL CORP [JP]
• [A] JP H10147838 A 19980602 - KOBE STEEL LTD
• [A] EP 1201780 A1 20020502 - NIPPON STEEL CORP [JP]
• [A] JP H04333524 A 19921120 - NIPPON STEEL CORP
• [A] JP 2002161336 A 20020604 - NIPPON KOKAN KK

Designated contracting state (EPC)
DE SE

DOCDB simple family (publication)
EP 1514951 A1 20050316; **EP 1514951 A4 20060510**; **EP 1514951 B1 20101124**; DE 60335106 D1 20110105; EP 2017363 A2 20090121; EP 2017363 A3 20090805; US 2004238082 A1 20041202; WO 03106723 A1 20031224

DOCDB simple family (application)
EP 03736017 A 20030604; DE 60335106 T 20030604; EP 08159197 A 20030604; JP 0307062 W 20030604; US 48578004 A 20040329