

Title (en)
Steel sheet for the manufacture of light structures and manufacturing process of this sheet

Title (de)
Stahlblech für die Herstellung leichter Strukturen und Herstellungsverfahren dieses Blattes

Title (fr)
Tole d'acier pour la fabrication de structures allegées et procédé de fabrication de cette tole

Publication
EP 1897963 A1 20080312 (FR)

Application
EP 06291413 A 20060906

Priority
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Abstract (en)
Steel sheet comprises (in wt.%) carbon (0.01-0.2), manganese (0.06-3), silicon (= 1.5), aluminum (0.005-1.5), phosphorous (= 0.04), titanium (2.5-7.2) and boron according to a formula given in the specification, optionally other elements such as nickel (= 1), molybdenum (= 1), chromium (= 3), niobium (= 0.1), vanadium (= 0.1) and iron and impurities (rest), where the impurities are unavoidable impurities resulting from elaboration. Independent claims are included for: (1) an object manufactured from the steel pieces of the same or different composition and thickness in which at least one of the steel pieces is the given steel sheet, welded together; (2) a manufacturing process comprising supplying steel compositions and casting the steel in the form of semi-finished product; and (3) production of structural parts, comprising cutting out a blank from a steel sheet or an object and deforming the blank at 20-900[deg] C.

Abstract (fr)
L'invention concerne une tôle d'acier dont la composition comprend, les teneurs étant exprimées en poids : 0,010% # C # 0,20% , 0,06 % # Mn # 3%, Si # 1,5%, 0,005% # Al # 1,5%, S # 0,030%, P # 0,040%, 2,5% # Ti # 7,2%, (0,45 xTi) - 0,35% # B # (0,45 xTi) + 0,70%, et optionnellement, un ou plusieurs éléments choisis parmi : Ni # 1%, Mo # 1%, Cr # 3%, Nb # 0,1%, V # 0,1%, le reste de la composition étant constitué de fer et d'impuretés inévitables résultant de l'élaboration

IPC 8 full level
C22C 38/00 (2006.01); **C22C 38/14** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)
C22C 38/001 (2013.01 - KR); **C22C 38/02** (2013.01 - EP); **C22C 38/04** (2013.01 - KR); **C22C 38/06** (2013.01 - KR);
C22C 38/14 (2013.01 - EP KR)

Citation (search report)
• [A] JP 2005154826 A 20050616 - AICHI STEEL WORKS LTD, et al
• [A] SU 1122009 A1 19961210 - NAUCHNO-PROIZVODSTVENNOE OB EDINENIE PO TEKHMASHINOSTROENIJA TSNIITMASH [RU]
• [A] EP 1156126 A1 20011121 - IMPHY UGINE PRECISION [FR]

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AL BA HR MK YU

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EP 06291413 A 20060906; BR PI0716877 A 20070827; CA 2662741 A 20070827; CN 200780033041 A 20070827; EP 07823448 A 20070827; ES 07823448 T 20070827; FR 2007001401 W 20070827; HU E07823448 A 20070827; JP 2009527173 A 20070827; KR 20097004737 A 20090306; MA 31679 A 20090303; MX 2009002411 A 20070827; PL 07823448 T 20070827; RU 2009108338 A 20070827; TR 201802707 T 20070827; UA A200902135 A 20070827; ZA 200901377 A 20090226