

Title (en)

Use of a steel flat product produced from a manganese boron steel and method of its production

Title (de)

Verwendung eines aus einem Mangan-Bor-Stahl hergestellten Flachproduktes und Verfahren zu dessen Herstellung

Title (fr)

Utilisation d'un produit plat fabriqué à partir d'un acier au manganèse et au bore et procédé de sa fabrication

Publication

**EP 1865086 B1 20100811 (DE)**

Application

**EP 06115075 A 20060607**

Priority

EP 06115075 A 20060607

Abstract (en)

[origin: EP1865086A1] Manganese-boron-steel (I) comprises (in wt.%): carbon (0.1-0.2); silicon (0.05-0.3), manganese (0.8-1.8), nickel (0.5-.8); phosphorus (= 0.015), sulfur (= 0.003), boron (0.0002-0.008), optionally titanium (0.01-0.1), optionally aluminum (0.01-0.05), optionally nitrogen (0.002-0.005) and rest of iron and unavoidable impurities. Independent claims are included for: (1) a flat steel product comprising (I); and (2) a process for the preparation of the steel product comprising smelting a steel melt containing (I), pouring the melt to slabs or thin slabs, thermally-rolling the slabs or thin slabs at 850-900[deg]C to form a hot-rolled strip and hasping the hot-rolled strip at 560-600[deg]C.

IPC 8 full level

**C22C 38/04** (2006.01); **C21D 8/04** (2006.01); **C22C 38/08** (2006.01)

CPC (source: EP US)

**C21D 1/18** (2013.01 - EP); **C21D 8/0405** (2013.01 - EP); **C21D 8/0426** (2013.01 - EP); **C22C 21/10** (2013.01 - EP); **C22C 38/002** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/04** (2013.01 - EP); **C22C 38/08** (2013.01 - EP); **C23C 2/02** (2013.01 - EP US); **C23C 2/024** (2022.08 - EP US); **C23C 10/02** (2013.01 - EP); **C23C 28/021** (2013.01 - EP); **C23C 28/025** (2013.01 - EP)

Cited by

EP2390530A1; US9057419B2; WO2011150992A1; WO2020002285A1; WO2016193268A1; WO2018220430A1; WO2018220598A1; US11629388B2; WO2017006144A1; WO2017006159A1; EP3591079A1; EP3604564A1; US11319610B2; EP4234746A2; US11814696B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1865086 A1 20071212**; **EP 1865086 B1 20100811**; AT E477348 T1 20100815; DE 502006007636 D1 20100923; WO 2007141152 A1 20071213

DOCDB simple family (application)

**EP 06115075 A 20060607**; AT 06115075 T 20060607; DE 502006007636 T 20060607; EP 2007055130 W 20070525