

Title (en)
METHOD FOR PRODUCING STEEL SHEETS HAVING HIGH RESISTANCE AND DUCTILITY CHARACTERISTICS, AND SHEETS THUS OBTAINED

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES STAHLBLECHS MIT SEHR HOHEN FESTIGKEITS- UND BIEGBARKEITSEIGENSCHAFTEN UND IN DIESEM VERFAHREN HERGESTELLTE BLECHE

Title (fr)
PROCEDE DE FABRICATION DE TÔLES D'ACIER A HAUTES CARACTERISTIQUES DE RESISTANCE ET DE DUCTILITE, ET TÔLES AINSI PRODUITES

Publication
EP 2171112 B1 20111123 (FR)

Application
EP 08830766 A 20080709

Priority
• FR 2008000993 W 20080709
• EP 07290908 A 20070719
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Abstract (en)
[origin: EP2020451A1] Hot-rolled steel sheet having a strength of greater than 800 MPa, and an elongation at break of greater than 10%, comprises (wt.%): carbon (0.05-0.09); manganese (1-2); aluminum (0.015-0.05); silicon (0.1-0.3); molybdenum (0.1-0.4); sulfur (= 0.01); phosphorus (= 0.025); nitrogen (0.003-0.009); vanadium (0.12-0.22); titanium (= 0.009); niobium (= 0.02); and optionally chromium (= 0.45), where the rest of the composition is constituted of iron and unavoidable impurities resulting from elaboration. Independent claims are included for: (1) a weld assembly done by the steel sheet, where the sheet is welded by beam at high energy density; and (2) a preparation of the hot-rolled steel sheet comprising supplying the steel composition, casting of semi finished product from the steel, subjecting the semi finished product to a temperature of greater than 1150[deg] C, hot-rolling the semi finished product at end temperature of rolling (TFL), where the microstructure of the steel is entirely austenitic to obtain the sheet, then cooling the sheet at a cooling speed (VR) of 75-200[deg] C/second, and coiling the sheet at a winding temperature (Tbob) of 500-600[deg] C.

IPC 8 full level
C22C 38/04 (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01)

CPC (source: EP KR US)
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Cited by
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