

Title (en)
PROCESS FOR PRODUCING TAPERED PLATE

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER KONISCHEN PLATTE

Title (fr)
PROCÉDÉ DE PRODUCTION DE PLAQUE CONIQUE

Publication
EP 2806042 A4 20150603 (EN)

Application
EP 12865903 A 20120419

Priority
• JP 2012007765 A 20120118
• JP 2012061156 W 20120419

Abstract (en)
[origin: WO2013108419A1] A process for producing a tapered plate which permits high heat input welding with a welding heat input exceeding 300kJ/cm and which exhibits a tensile strength of 570MPa or more is provided. Specifically, this process comprises: heating a steel slab which contains, in mass %, 0.03 to 0.12% of C, 0.03 to 0.5% of Si, 0.8 to 2.2% of Mn, at most 0.015% of P, 0.0005 to 0.0050% of S, 0.005 to 0.1% of Al, 0.003 to 0.014% of Nb, 0.003 to 0.02% of Ti, 0.0003 to 0.0025% of B, 0.0030 to 0.0070% of N and 0.0005 to 0.005% of Ca with the balance being Fe and unavoidable impurities and which satisfies the relationship (1) to a temperature of 1000 to 1200°C; subjecting the resulting slab to hot-rolling with the finishing rolling temperature ranging from the Ar3 temperature to 900°C to convert the slab into a tapered plate of which the plate thickness decreases longitudinally; and then subjecting the tapered plate to accelerated cooling to lower the temperature of the tapered plate to 500°C or lower. $0 \leq N-Ti/3.42 \leq 0.0025$ [wherein N and Ti represent the contents (mass%) thereof respectively] ... (1)

IPC 8 full level
C21D 8/02 (2006.01); **B21B 1/38** (2006.01); **B21B 3/00** (2006.01); **C22C 38/00** (2006.01); **C22C 38/14** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP)
C21D 8/0205 (2013.01); **C21D 8/0226** (2013.01); **C21D 8/0263** (2013.01); **C21D 9/46** (2013.01); **C22C 38/002** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/06** (2013.01); **C22C 38/08** (2013.01); **C22C 38/12** (2013.01); **C22C 38/14** (2013.01); **C22C 38/16** (2013.01); **C22C 38/18** (2013.01)

Citation (search report)
• [I] JP H1017932 A 19980120 - KAWASAKI STEEL CO
• [A] JP 2008255458 A 20081023 - KOBE STEEL LTD
• See references of WO 2013108419A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2013108419 A1 20130725; CN 104066858 A 20140924; CN 104066858 B 20151125; EP 2806042 A1 20141126; EP 2806042 A4 20150603; EP 2806042 B1 20180912; KR 101612660 B1 20160414; KR 20140110065 A 20140916

DOCDB simple family (application)
JP 2012061156 W 20120419; CN 201280067544 A 20120419; EP 12865903 A 20120419; KR 20147022106 A 20120419