

Title (en)
DUPLEX STAINLESS STEEL AND METHOD FOR PRODUCTION THEREOF

Title (de)
DUPLEX-EDELSTAHL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
ACIER NON OXYDABLE DUPLEX ET PROCEDE DE PRODUCTION CORRESPONDANT

Publication
EP 1561834 B1 20110420 (EN)

Application
EP 04748203 A 20040803

Priority
• JP 2004011070 W 20040803
• JP 2003289418 A 20030807

Abstract (en)
[origin: EP1561834A1] A duplex stainless steel containing C, Si, Mn, P, S, Al, Ni, Cr, Mo, N (nitrogen, O (oxygen), Ca, Mg, Cu, B, and W, and the balance Fe and impurities, where a number of oxide-based inclusions, which have a total content of Ca and Mg of 20 to 40 % by mass and also have a long diameter of not less than 7 μm , is not more than a 10 per 1 mm^2 of the cross section perpendicular to the working direction, or further, the number of oxide-based inclusions, which have a content of S of not less than 15% by mass and also have a long diameter of not less than 1 μm , is not more than 10 per 0.1 mm^2 of the cross section perpendicular to the working direction.. Particularly, the contents of Cu, B and W are desirably 0.2 to 2%, 0.001 to 0.01%, and 0.1 to 4% by mass, respectively. <IMAGE>

IPC 8 full level
C22C 38/00 (2006.01); **C21C 7/00** (2006.01); **C21C 7/06** (2006.01); **C21C 7/064** (2006.01); **C21C 7/068** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)
C21C 7/0087 (2013.01 - EP); **C21C 7/06** (2013.01 - EP); **C21C 7/064** (2013.01 - EP); **C22C 38/001** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/04** (2013.01 - EP); **C22C 38/42** (2013.01 - EP); **C22C 38/44** (2013.01 - EP KR)

Cited by
KR20160082329A; US11692253B2; EP2684974A4; EP2669397A4; EP3333275A1; US9862168B2; CN103890214A; EA024902B1; US11932926B2; US9512509B2; US11555231B2; WO2018104179A1; WO2013034804A1

Designated contracting state (EPC)
GB IT SE

DOCDB simple family (publication)
EP 1561834 A1 20050810; **EP 1561834 A4 20070711**; **EP 1561834 B1 20110420**; AU 2004262702 A1 20050217; AU 2004262702 B2 20070503; BR PI0406423 A 20051004; BR PI0406423 B1 20121211; CN 100427627 C 20081022; CN 1701126 A 20051123; JP 4155300 B2 20080924; JP WO2005014872 A1 20061005; KR 100661328 B1 20061227; KR 20060024316 A 20060316; NO 20052266 D0 20050510; NO 20052266 L 20050706; NO 336117 B1 20150518; WO 2005014872 A1 20050217

DOCDB simple family (application)
EP 04748203 A 20040803; AU 2004262702 A 20040803; BR PI0406423 A 20040803; CN 200480000968 A 20040803; JP 2004011070 W 20040803; JP 2005512929 A 20040803; KR 20057004913 A 20050322; NO 20052266 A 20050510