Title (en)

DUPLEX STAINLESS STEEL WIRE MATERIAL, STEEL WIRE, BOLT, AND METHOD FOR PRODUCTION OF THE BOLT

Title (de)

DRAHTMATERIAL AUS ROSTFREIEM DUPLEXSTAHL, STAHLDRAHT, BOLZEN UND VERFAHREN ZUR HERSTELLUNG DES BOLZENS

Title (fr)

MATÉRIAU POUR FIL D'ACIER INOXYDABLE DUPLEX, FIL D'ACIER, BOULON ET PROCÉDÉ DE PRODUCTION DU BOULON

Publication

EP 2199421 A4 20160720 (EN)

Application

EP 08837204 A 20081010

Priority

- JP 2008068467 W 20081010
- JP 2007264992 A 20071010
- JP 2007264993 A 20071010

Abstract (en)

[origin: EP2199421A1] This austenite-ferrite duplex steel wire material for high strength highly corrosion resistant bolts, which has excellent cold forgeability and contains, in terms of mass %, C: 0.005 to 0.05%, Si: 0.1 to 1.0%, Mn: 0.1 to 10.0%: Ni: 1.0 to 6.0%, Cr: 19.0 to 30.0%, Cu: 0.05 to 3.0%, and N: 0.005 to 0.20%, with a remainder being iron and unavoidable impurities, wherein C+N is not more than 0.20%, an M value represented by formula (a) below is not more than 60, an F value represented by formula (b) below is from 45 to 85, and the tensile strength is within a range from 550 to 750 N/mm 2 . M = 551 - 462 #¢ C + N - 9.2 #¢ Si - 8.1 #¢ Mn - 29 #¢ Ni + Cu - 13.7 #¢ Cr - 18.5 #¢ Mo F = 5.6 #¢ Cr - 7.1 #¢ Ni + 2.4 #¢ Mo + 15 #¢ Si - 3.1 #¢ Mn - 300 #¢ C - 134 #¢ N - 26.6

IPC 8 full level

C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C21D 9/00** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)

C21D 6/004 (2013.01 - EP); **C21D 6/02** (2013.01 - EP KR); **C21D 8/06** (2013.01 - EP KR); **C21D 9/0093** (2013.01 - EP); **C21D 9/56** (2013.01 - KR); **C22C 38/001** (2013.01 - EP KR); **C22C 38/002** (2013.01 - EP KR); **C22C 38/02** (2013.01 - EP KR); **C22C 38/42** (2013.01 - EP KR); **C22C 38/44** (2013.01 - EP KR); **C22C 38/58** (2013.01 - EP KR); C21D 7/02 (2013.01 - EP); C21D 8/065 (2013.01 - EP); C21D 9/02 (2013.01 - EP); C21D 9/525 (2013.01 - EP); C21D 9/56 (2013.01 - EP); C21D 2211/001 (2013.01 - EP KR); C21D 2211/005 (2013.01 - EP KR)

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