

Title (en)
DUPLEX STAINLESS STEEL WIRE MATERIAL, STEEL WIRE, BOLT, AND METHOD OF MANUFACTURING THE SAME

Title (de)
DRAHTMATERIAL AUS ROSTFREIEM DUPLEXSTAHL, STAHL DRAHT, BOLZEN UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)
MATÉRIAU POUR FIL D'ACIER INOXYDABLE DUPLEX, FIL D'ACIER, BOULON ET PROCÉDÉ DE FABRICATION ASSOCIÉ

Publication
EP 2199421 B1 20200805 (EN)

Application
EP 08837204 A 20081010

Priority

- JP 2008068467 W 20081010
- JP 2007264992 A 20071010
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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/mm². $M = 551 - 462 \#C + N - 9.2 \#Si - 8.1 \#Mn - 29 \#Ni + Cu - 13.7 \#Cr - 18.5 \#Mo$ $F = 5.6 \#Cr - 7.1 \#Ni + 2.4 \#C + 15 \#Si - 3.1 \#Mn - 300 \#C - 134 \#N - 26.6$

IPC 8 full level
C21D 6/02 (2006.01); **C21D 6/00** (2006.01); **C21D 7/02** (2006.01); **C21D 8/06** (2006.01); **C21D 9/00** (2006.01); **C21D 9/02** (2006.01); **C21D 9/52** (2006.01); **C21D 9/56** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/58** (2006.01)

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Cited by
EP2759607A1; EP2762597A4; US10280491B2; US9523620B2

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