

Title (en)
MARTENSITIC STAINLESS STEEL

Title (de)
MARTENSITISCHER NICHTROSTENDER STAHL

Title (fr)
ACIER INOXYDABLE MARTENSITIQUE

Publication
EP 1826285 A4 20090408 (EN)

Application
EP 05799225 A 20051026

Priority
• JP 2005019685 W 20051026
• JP 2004335241 A 20041119

Abstract (en)
[origin: EP1826285A1] Martensitic stainless steel according to the invention contains, by mass, 0.001% to 0.01% C, at most 0.5% Si, 0.1% to 3.0% Mn, at most 0.04% P, at most 0.01% S, 10% to 15% Cr, 4% to 8% Ni, 2.8% to 5.0% Mo, 0.001% to 0.10% Al, at most 0.07% N, 0% to 0.25% Ti, 0% to 0.25% V, 0% to 0.25% Nb, 0% to 0.25% Zr, 0% to 1.0% Cu, 0% to 0.005% Ca, 0% to 0.005% Mg, 0% to 0.005% La, and 0% to 0.005% Ce, with the balance being Fe and impurities, and the steel satisfies Expressions (1) and (2) and has a yield stress in the range from 758 MPa to 860 MPa. In this way, in the martensitic stainless steel according to the invention, the tempering temperature range at which a yield stress in the range from 758 MPa to 860 MPa can be obtained is increased, 922.6 - 554.5 #c C - 50.9 #c Mn + 2944.8 #c P + 1.056 #c Cr - 81.1 #c Ni + 95.8 #c Mo - 125.1 #c Ti # 1584.9 #c A #c 1 # 376.1 #c N #¥ 600 30 #c C + 0.5 #c Mn + Ni + 0.5 #c Cu # 1.5 #c Si # Cr # Mo + 7.9 #¥ 0

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Citation (search report)
• [X] JP H05156409 A 19930622 - NIPPON STEEL CORP
• [A] US 6129999 A 20001010 - UEDA MASAKATSU [JP], et al
• [PA] EP 1584699 A1 20051012 - SUMITOMO METAL IND [JP]
• [A] EP 1026273 A1 20000809 - SUMITOMO METAL IND [JP]
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• [A] JP 2000192196 A 20000711 - SUMITOMO METAL IND
• See references of WO 2006054430A1

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