

Title (en)
MARTENSITE STAINLESS STEEL OF HIGH CORROSION RESISTANCE

Title (de)
MARTENSITISCHER ROSTFREIER STAHL MIT HOHEM KORROSIONSWIDERSTAND

Title (fr)
ACIER INOXYDABLE EN MARTENSITE A HAUTE RESISTANCE A LA CORROSION

Publication
EP 1026273 A4 20051214 (EN)

Application
EP 98932588 A 19980717

Priority
• JP 9803243 W 19980717
• JP 19400097 A 19970718

Abstract (en)
[origin: EP1026273A1] A high-strength and high-toughness martensitic stainless steel, which is excellent in corrosion resistance to carbon dioxide, and which has no risk of cracking, even if used as welded under cathodic protection. The steel has the following basic composition (1) and satisfies the following condition (2). (1) The composition containing, on a mass basis, C: not greater than 0.04%, Cr: 7-15%, Ni: 0.7-8.0%, Al: 0.001-0.20%, or further containing one or more of Si, Mn, Cu, S, Nb, Ti, Zr, Mo, W, Ca, Mg, and La in a specified amount. (2) The following inequalities (1) and (2) are satisfied. $M=98+47C-1.1Cr+1.4Ni-150Al-200Nb-50Ti-200Zr-22(Mo+0.5W) \geq 50$ $P \leq 0.046-0.0008HRC$ where the symbols of the elements in the inequalities (1)-1 to (1)-4 and (2) indicate the contents (% by mass) of the respective elements, and HRC in the inequality (2) indicates the Rockwell C-scale hardness of the steel as quenched. <IMAGE>

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Citation (search report)
• [A] EP 0273279 A2 19880706 - NISSHIN STEEL CO LTD [JP]
• [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 430 (C - 1236) 11 August 1994 (1994-08-11)
• See references of WO 9904052A1

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EP1306458A3; EP1826285A4; EP1403391A4; EP1584699A4; NO337858B1; US8168008B2; EP1717328A4; US7361236B2; WO03033754A1; US8157930B2

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