

Title (en)

HIGHLY STRONG, HIGHLY TOUGH AND HIGHLY CORROSION-RESISTANT MARTENSITIC STAINLESS STEEL

Title (de)

HOCHFESTER, HOCHZÄHER UND HOCH KORROSIONSBESTÄNDIGER MARTENSITISCHER EDELSTAHL

Title (fr)

ACIER INOXYDABLE MARTENSITIQUE À HAUTE RÉSISTANCE, HAUTE TÉNACITÉ ET HAUTE RÉSISTANCE À LA CORROSION

Publication

EP 2889390 A4 20160511 (EN)

Application

EP 13830674 A 20130424

Priority

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Abstract (en)

[origin: EP2889390A1] It is an object of the present invention to provide a high performance-stainless steel exhibiting a corrosion resistance even under a very severe corrosion environment at temperatures of equal to or higher than 180 °C, for example, 220 °C while maintaining a strength and a toughness by improving a corrosion resistance of a conventional martensitic stainless steel with high strength. The present invention provides a martensitic stainless steel containing, in mass %, C: 0.005 % to 0.05 %, Si: equal to or less than 1.0 %, Mn: equal to or less than 2.0 %, Cr: 16 to 18 %, Ni: 2.5 to 6.5 %, Mo: 1.5 to 3.5 %, W: equal to or less than 3.5 %, Cu: equal to or less than 3.5 %, V: 0.01 to 0.08 %, Sol.Al: 0.005 to 0.10 %, N: equal to or less than 0.05 %, and Ta: 0.01 to 0.06 %, and the balance Fe with inevitable impurities.

IPC 8 full level

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Citation (search report)

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