Title (en)

MARTENSITIC STAINLESS STEEL COMPOSITION, METHOD FOR MAKING A MECHANICAL PART FROM SAID STEEL AND RESULTING PART

Title (de)

ZUSAMMENSETZUNG VON MARTENSITISCHEM NICHTROSTENDEM STAHL, VERFAHREN ZUR HERSTELLUNG EINES MECHANISCHEN TEILS DARAUS UND RESULTIERENDES TEIL

Title (fr)

COMPOSITION D'ACIER INOXYDABLE MARTENSITIQUE, PROCEDE DE FABRICATION D'UNE PIECE MECANIQUE A PARTIR DE CET ACIER ET PIECE AINSI OBTENUE

Publication

EP 1896624 A1 20080312 (FR)

Application

EP 06778669 A 20060626

Priority

- FR 2006001472 W 20060626
- FR 0506591 A 20050628

Abstract (en)

[origin: WO2007003748A1] The invention concerns martensitic stainless steel, characterized in that its composition in weight percentages is as follows: 9 % = Cr = 13 %; 1.5 % = Mo = 3 %; 8 % = Ni = 14 %; 1 % = Al = 2 %; 0.5 % = Ti = 1.5 % with Al + Ti = 2.25 %; traces = Co = 2 %; traces = W = 1 % with Mo + (W/2) = 3 %; traces = P = 0.02 %; traces = S = 0.0050 %; traces = N = 0.0060 %; traces = C = 0.025 %; traces = Cu = 0.5 %; traces = Mn = 3 %; traces = Si = 0.25 %; traces = O = 0.0050 %; and is such that: Ms (°C) = 1302 42 Cr 63 Ni 30 Mo + 20Al - 15W - 33Mn - 28Si - 30Cu - 13Co + 10 Ti = 50Cr eq / Ni eq = 1 .05 with Cr eq (%) = Cr + 2Si + Mo + 1.5 Ti + 5.5 Al + 0.6W Ni eq (%) = 2Ni + 0.5 Mn + 3O C + 25 N + Co + 0.3 Cu. The invention also concerns a method for making a mechanical part using said steel, and the resulting part.

IPC 8 full level

C22C 38/44 (2006.01); **C21D 1/25** (2006.01); **C21D 6/00** (2006.01); **C21D 6/04** (2006.01)

CPC (source: EP US)

C21D 1/25 (2013.01 - EP US); **C21D 6/004** (2013.01 - EP US); **C21D 6/02** (2013.01 - EP US); **C21D 6/04** (2013.01 - EP US); **C21D 9/32** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); C21D 2211/004 (2013.01 - EP US); C21D 2211/008 (2013.01 - EP US)

Citation (search report)

See references of WO 2007003748A1

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CN109454211A; EP2722407A3

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2887558 A1 20061229; **FR 2887558 B1 20070817**; AT E478165 T1 20100915; BR PI0613291 A2 20101228; BR PI0613291 B1 20140826; CA 2612718 A1 20070111; CA 2612718 C 20150106; CN 101248205 A 20080820; CN 101248205 B 20140507; DE 602006016281 D1 20100930; DK 1896624 T3 20100920; EP 1896624 A1 20080312; EP 1896624 B1 20100818; ES 2349785 T3 20110111; JP 2008546912 A 20081225; JP 5243243 B2 20130724; PL 1896624 T3 20101231; RU 2008102988 A 20090810; RU 2415196 C2 20110327; SI 1896624 T1 20101029; US 2010139817 A1 20100610; US 8097098 B2 20120117; WO 2007003748 A1 20070111

DOCDB simple family (application)

FR 0506591 A 20050628; AT 06778669 T 20060626; BR PI0613291 A 20060626; CA 2612718 A 20060626; CN 200680030859 A 20060626; DE 602006016281 T 20060626; DK 06778669 T 20060626; EP 06778669 A 20060626; ES 06778669 T 20060626; FR 2006001472 W 20060626; JP 2008518910 A 20060626; PL 06778669 T 20060626; RU 2008102988 A 20060626; SI 200630767 T 20060626; US 99367506 A 20060626