

Title (en)

HEAT-RESISTANT FERRITIC STAINLESS STEEL EXCELLENT IN LOW-TEMPERATURE TOUGHNESS, WELDABILITY AND HEAT RESISTANCE.

Title (de)

HITZEBESTÄNDIGER FERRITISCHER NICHTTROTENDER STAHL MIT HERVORRAGENDEN EIGENSCHAFTEN FÜR ZÄHIGKEIT BEI TIEFEN TEMPERATUREN, SCHWEISSBARKEIT UND HITZEBESTÄNDIGKEIT.

Title (fr)

ACIER INOXYDABLE FERRITIQUE THERMO-RESISTANT PRESENTANT D'EXCELLENTE PROPRIÉTÉ DE TENACITÉ À BASSE TEMPÉRATURE, DE SOUDABILITÉ ET DE THERMO-RESISTANCE.

Publication

EP 0478790 B1 19950628 (EN)

Application

EP 91906263 A 19910313

Priority

- JP 9100344 W 19910313
- JP 7478590 A 19900324

Abstract (en)

[origin: EP0478790A1] A heat-resistant ferritic stainless steel improved in low-temperature toughness, prevented from undergoing high-temperature weld crack, and useful as a material of a passage of automobile exhaust gas, particularly a passage exposed to high temperature between an engine and a converter, which comprises up to 0.03 % of carbon, 0.1 to 0.8 % of silicon, 0.6 to 2.0 % of manganese, up to 0.006 % of sulfur, up to 4 % of nickel, 17.0 to 25.0 % of chromium, 0.2 to 0.8 % of niobium, 1.0 to 4.5 % of molybdenum, 0.1 to 2.5 % of copper, up to 0.03 % of nitrogen, and optionally a necessary amount of at least one of aluminum, titanium, vanadium, zirconium, tungsten, boron and REM, wherein the manganese to sulfur ratio is 200 or above, $[Nb] = Nb \% - 8(C \% + N \%) \geq 0.2$, and $Ni \% + Cu \% \leq 4$, the balance being iron and inevitable impurities in the production process.

IPC 1-7

C22C 38/48; **C22C 38/50**; **C22C 38/54**; **C22C 38/58**

IPC 8 full level

C22C 38/00 (2006.01); **C22C 38/48** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)

C22C 38/48 (2013.01 - EP KR)

Cited by

EP3604589A4; EP2210965A4; CN1308477C; CN103210104A; EP0779374A1; EP3508598A4; EP2316979A4; EP2351868A4; EP1176220A1; US2015010771A1; US9920409B2; EP0795619A1; FR2746114A1; US5779820A; CN104619879A; CN108611561A; US11261512B2; US11365467B2; US6521056B2; US10450623B2; US10385429B2; US10260134B2; EP1818422A1; EP1818421A1; EP2060650A1; WO03004714A1; US9885099B2; US10030282B2; US9243306B2; US10047419B2; WO2014001644A1; EP3670692A1; WO2020127275A1

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

EP 0478790 A1 19920408; **EP 0478790 A4 19920812**; **EP 0478790 B1 19950628**; CA 2056362 A1 19910925; CA 2056362 C 20010828; DE 69110816 D1 19950803; DE 69110816 T2 19951130; JP 2696584 B2 19980114; JP H03274245 A 19911205; KR 0180206 B1 19990218; KR 920702434 A 19920904; WO 9114796 A1 19911003

DOCDB simple family (application)

EP 91906263 A 19910313; CA 2056362 A 19910313; DE 69110816 T 19910313; JP 7478590 A 19900324; JP 9100344 W 19910313; KR 910701642 A 19911120