

Title (en)

Ferritic stainless steel material for automobile exhaust gas passage components

Title (de)

Ferritischer Edelstahl für Abgasleitungskomponenten eines Fahrzeuges

Title (fr)

Matériau d'acier inoxydable ferritique pour des composants de passage de gaz d'échappement automobile

Publication

**EP 2060650 B1 20101215 (EN)**

Application

**EP 08019006 A 20081030**

Priority

JP 2007294932 A 20071113

Abstract (en)

[origin: EP2060650A1] To provide a ferritic stainless steel material for automobile exhaust gas passage components usable in a high-temperature range over 900°C and even over 950°C. The ferritic stainless steel material has excellent heat resistance and low-temperature toughness and has a composition comprising, in terms of % by mass, at most 0.03 % of C, at most 1 % of Si, from 0.6 to 2 % of Mn, at most 3 % of Ni, from 10 to 25 % of Cr, from 0.3 to 0.7 % of Nb, from more than 1 to 2 % of Cu, from 1 to 2.5 % of Mo, from 1 to 2.5 % of W, at most 0.15 % of Al, from 0.03 to 0.2 % of V, and at most 0.03 % of N, and optionally containing any of B, Co, W, Ti, Zr, REM and Ca with a balance of Fe and inevitable impurities, and the composition satisfies restrictive formulae  $1.2\text{Nb} + 5\text{Mo} + 6\text{Cu} \leq 11.5$  and  $15\text{Nb} + 2\text{Mo} + 0.5\text{Cu} \leq 10.5$ . The steel material has a texture where the total amount of Nb and Mo existing as a precipitation phase is at most 0.2 % by mass.

IPC 8 full level

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CPC (source: EP US)

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Cited by

EP2864518A4; EP2546378A4; WO2014001644A1; EP2864518B1

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DOCDB simple family (publication)

**EP 2060650 A1 20090520**; **EP 2060650 B1 20101215**; CN 101435054 A 20090520; CN 101435054 B 20120912; DE 602008003963 D1 20110127; ES 2355171 T3 20110323; JP 2009120894 A 20090604; JP 5178157 B2 20130410; US 2009120536 A1 20090514

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