

Title (en)
Heat resisting steel, gas turbine using the steel, and components thereof

Title (de)
Wärmebeständiger Stahl sowie daraus hergestellte Gasturbine und Bauteile

Title (fr)
Acier résistant à la chaleur et turbine à gaz et composants réalisées en cet acier

Publication
EP 1466993 B1 20070418 (EN)

Application
EP 04001026 A 20040119

Priority
JP 2003101401 A 20030404

Abstract (en)
[origin: EP1466993A1] The invention is of a heat resisting martensitic steel comprising, by weight, 0.05 to 0.30% C, not more than 0.50% Si, not more than 0.60% Mn, 8.0 to 13.0% Cr, 0.5 to 3.0% Ni, 1.0 to 3.0% Mo, 0.1 to 1.5% W, 0.5 to 4% Co, 0.05 to 0.35% V, 0.02 to 0.30% in total of one or two elements selected from the group consisting of Nb and Ta, and 0.02 to 0.10% N, wherein a value of the square of a difference between the Ni amount and the Co amount, and the Ni amount are not more than values determined by a straight line drawn on a point A (1.0, 2.7%) and a point B (2.5, 1.0%) in the orthogonal coordinates shown in the attached drawing of Fig. 2 which represents a relationship between the above square value and the Ni amount, and an amount ratio of Mo/(Mo + 0.5W) is not less than 0.5. The heat resisting steel is suitably used in various components of a gas turbine.

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Cited by
CN104831160A; RU2757923C1; RU2615931C1; RU2598725C2; EP2478988A1; CH704427A1; CN102601538A; US10458007B2; US10094007B2; WO2014066570A1; US11634803B2

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