

Title (en)

NON-HEAT-TREATED HOT-FORGING STEEL EXCELLENT IN TENSILE STRENGTH, FATIGUE STRENGTH AND MACHINABILITY.

Title (de)

WÄRMEUNBEHANDELTHER WARMGESCHMIEDETER STAHL MIT HERVORRAGENDER ZUGFESTIGKEIT, ERMÜDUNGSFESTIGKEIT UND BEARBEITBARKEIT.

Title (fr)

ACIER DE FORGEAGE A CHAUD SANS TRAITEMENT THERMIQUE, PRESENTANT D'EXCELLENTES CARACTERISTIQUES DE RESISTANCE A LA TRACTION ET A LA FATIGUE ET UNE TRES BONNE APTITUDE A L'USINAGE.

Publication

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Application

EP 94929026 A 19941011

Priority

- JP 9401693 W 19941011
- JP 25433593 A 19931012

Abstract (en)

A non-heat-treated ferritic-bainitic steel to be used as hot-forged, wherein the following relation holds between the bainitic structure fraction f and the carbon content $C(\%)$: $1.4C + 0.4 \geq f \geq 1.4C$ in the metal structure after hot forging a steel material containing the following elements on the weight basis: C: 0.10 SIMILAR 0.35 %; Si: 0.15 SIMILAR 2.00 %; Mn: 0.40 SIMILAR 2.00 %; S: 0.03 SIMILAR 0.10 %; Al: 0.0005 SIMILAR 0.05 %; Ti: 0.003 SIMILAR 0.05 %; N: 0.0020 SIMILAR 0.0070 %; V: 0.30 SIMILAR 0.70 % and further containing at least one of Cr, Mo, Nb, Pb and Ca in a specified amount and cooling the forged steel to room temperature. It is possible to produce a non-heat-treated hot-forging steel having high tensile strength, fatigue strength and machinability.

IPC 1-7

C22C 38/14; **C22C 38/28**; **C22C 38/60**

IPC 8 full level

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CPC (source: EP KR)

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