

Title (en)

Method of producing austempered spheroidal graphite cast iron body.

Title (de)

Verfahren zur Herstellung von Gegenständen aus Gusseisen mit Kugelgraphit durch Umwandlung in der Bainitstufe.

Title (fr)

Procédé pour la fabrication de pièces de fonte à graphite sphéroïdal par trempe bainitique.

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Application

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Priority

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Abstract (en)

An excellently austempered spheroidal graphite cast iron body, which may be a thick-wall body, is obtained by using a spheroidal graphite cast iron composition consisting essentially of 3.0-4.0 wt% of C 1.5-3.0 wt% of Si, 0.3-0.8 wt% of Mn, 0.3-2.0 wt% of Cu, 0.005-0.2 wt% of a spheroidizing agent such as Mg, Ca or Ce, 0-0.1 wt% of Mo, 0-0.3 wt% of Ni and the balance of Fe, and by accomplishing the cooling of the cast iron body from the austenite stabilizing temperature to the bainite transformation temperature at an adequate cooling rate so as to avoid precipitation of pearlite, preferably at a cooling rate between 10 DEG C/sec and 0.64 DEG C/sec. Best results are obtained by performing the cooling in a fluidized bed furnace.

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CPC (source: EP)

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Cited by

EP0747154A1; EP0262324A1; EP0203050A1; CN110561405A; CN116574874A; EP1029098A4; FR2712606A1; EP2471960A1; FR2866351A1; EP1566459A3; FR2839727A1; CN100378240C; US5753055A; CN102575326A; CN112609054A; US10337089B2; WO2011042123A1; WO03100107A1

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