

Title (en)

Process for manufacturing chromium-containing cast iron and cast articles made therefrom.

Title (de)

Verfahren zur Herstellung von Chromgusseisen und daraus hergestellte Gussteile.

Title (fr)

Procédé pour la fabrication de fonte alliée au chrome et pièces de fonderie fabriquées avec cette fonte.

Publication

EP 0029539 A1 19810603 (DE)

Application

EP 80106898 A 19801108

Priority

CH 1029179 A 19791119

Abstract (en)

[origin: US4382828A] White, chromium cast iron having shock and impact resistance which comprise iron together with: -Carbon: 2.2 to 3.6% by weight -Chromium: 12.0 to 30.0% by weight -Molybdenum: 0.0 to 3.0% by weight -Nickel: 0.0 to 3.0% by weight -Manganese: 0.0 to 2.0% by weight -Copper: 0.0 to 3.0% by weight -Vanadium: 0.0 to 1.5% by weight - are disclosed. The casting are produced by casting the molten alloy in a metallic permanent mold, removing the solidified casting from the mold at a temperature above the Ac₃ temperature and cooling the casting sufficiently quickly to prevent the formation of pearlite as well as secondary carbide precipitation.

Abstract (de)

Es wird ein Verfahren zur Herstellung von vorwiegend austenitischem weissen Chromgusseisen mit 2,2 - 3,6 % C, 12 -30%Cr, 0-3%Mo und 0-3 % Ni, 0-2 % Mn, 0-3 % Cu sowie 0 - 1,5% V für prall- und schlagbeanspruchte Gusstücke zum Geissen in metallischen Dauerformen angegeben, wobei oberhalb der Ac₃ Temperatur ausgepackt und genügend schnell abgekühlt wird, um die Perlitbildung sowie eine Sekundärkarbidausscheidung zu verhindern.

IPC 1-7

C22C 37/06; C21D 5/04

IPC 8 full level

B22D 27/04 (2006.01); **C21D 5/00** (2006.01); **C21D 5/04** (2006.01); **C22C 37/06** (2006.01)

CPC (source: EP US)

C21D 5/04 (2013.01 - EP US); **C22C 37/06** (2013.01 - EP US)

Citation (search report)

- [X] US 3784416 A 19740108 - DAVIES B
- [X] WO 7900274 A1 19790517 - FISCHER AG GEORG [CH]
- [X] FR 2105955 A5 19720428 - FELTZ MICHEL
- US 4043842 A 19770823 - JOIRET VICTOR L J
- GB 1218981 A 19710113 - MAGOTTEAUX FOND [BE]
- [A] DE 2201770 A1 19730726 - VNI I PT I UGOLNOGO MASH
- [A] US 3941589 A 19760302 - NORMAN TELFER E, et al

Cited by

US4911763A; CN1040342C; CN1036795C; EP0178894A3; GB2167438A; EP3720979A4

Designated contracting state (EPC)

AT BE DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0029539 A1 19810603; AU 537793 B2 19840712; AU 6449680 A 19811001; BR 8007383 A 19810526; CH 648353 A5 19850315;
JP S5687651 A 19810716; US 4382828 A 19830510

DOCDB simple family (application)

EP 80106898 A 19801108; AU 6449680 A 19801119; BR 8007383 A 19801112; CH 1029179 A 19791119; JP 16149580 A 19801118;
US 20799780 A 19801118