Title (en)

WEAR-RESISTANT CAST IRON CONTAINING SPHEROIDAL GRAPHITE, AND PROCESS FOR ITS MANUFACTURE

Publication

EP 0080590 A3 19840307 (DE)

Application

EP 82109487 A 19821014

Priority

DE 3147461 A 19811201

Abstract (en)

[origin: US4435226A] A wear resistant cast iron alloy having a great strength for the manufacture of wear resistant machine parts having a tempered structure with embedded graphite spheroids formed in very fine form by the decomposition of ledeburite. The alloy has a spheroid number of 300,000 to 900,000/cm2 and is comprised of 1.5 to 3.0% carbon, 3.0 to 6.0% silicon, 0.1 to 2.0% manganese, 0.05 to 0.5% phosphorus, up to a maximum of 0.15% sulfur, 0.1 to 1.0% chromium, 0 to 3.5% vanadium, 0.1 to 2.5% molybdenum, 0.1 to 3.0% nickel and/or cobalt, 0.1 to 3.5% copper, 0.1 to 2.5% tungsten, 0.1 to 1.0% titanium, niobium and/or tantalum, up to a maximum of 0.15% magnesium, and up to a maximum of 0.15% nitrogen. A method is provided for producing a cast piece of the cast iron alloy.

IPC 1-7

C22C 37/04; C22C 33/08

IPC 8 full level

C22C 37/00 (2006.01); **C22C 37/04** (2006.01); **C22C 37/08** (2006.01)

CPC (source: EP US)

C22C 37/04 (2013.01 - EP US); **C22C 37/08** (2013.01 - EP US)

Citation (search report)

- [YD] DE 2428821 A1 19751218 - GOETZEWERKE
- [Y] DE 2428822 A1 19760102 - GOETZEWERKE
- [Y] DE 1650028 B1 19730614 - GOETZEWERKE
- [Y] GB 1336919 A 19731114 - GOETZEWERKE
- [A] GB 1541947 A 19790314 - TUL PK TECH I MASH
- [A] DE 2001495 A1 19720127 - SULZER AG
- [A] DE 2456700 A1 19760812 - GOETZEWERKE

Cited by

CN105838841A; RU2475565C1; FR2765592A1; CN105821174A; CN112359272A; CN111560559A; CN107245641A; FR2697766A1; CN108193125A; CN109609835A; EP0576173A3; RU2508418C1; EP0821073A1; CN105821285A; EP0778355A1; US5894010A; EP2924138A1; CN106480354A; CN105821284A; CN109988964A; CN113699433A; EP3974553A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0080590 A2 19830608; **EP 0080590 A3 19840307**; **EP 0080590 B1 19860528**; DE 3147461 A1 19830616; DE 3147461 C2 19831013; JP S58104154 A 19830621; US 4435226 A 19840306

DOCDB simple family (application)

EP 82109487 A 19821014; DE 3147461 A 19811201; JP 20874682 A 19821130; US 44496282 A 19821129