

Title (en)

SPHEROIDAL GRAPHITE CAST IRON WITH EXCELLENT GAS DEFECT RESISTANCE

Title (de)

KUGELGRAPHITGUSSEISEN MIT HERVORRAGENDER GASDEFEKT FESTIGKEIT

Title (fr)

FORGE À GRAPHITE SPHÉROÏDAL PRÉSENTANT UNE EXCELLENTE RÉSISTANCE AUX DÉFAUTS GAZEUX

Publication

EP 3358026 A1 20180808 (EN)

Application

EP 16850700 A 20160229

Priority

- JP 2015192682 A 20150930
- JP 2016055973 W 20160229

Abstract (en)

There is provided with spheroidal graphite cast iron having excellent gas defect resistance where gas defects such as pinholes attributable to the free N are small in number and having mechanical characteristics and machinability equal to or greater than the conventional ones. The spheroidal graphite cast iron consists of, in mass ratio, C: 3.3 to 4%; Si: 2 to 3%; P: not more than 0.05%; S: not more than 0.02%; Mn: not more than 0.8%; Cu: not more than 0.8% (0 is not included); Mg: 0.02 to 0.06%; Ti: 0.01 to 0.04%; V: 0.001 to 0.01%; Nb: 0.001 to 0.01%; and N: 0.004 to 0.008%, with the remnant substantially consisting of Fe and an inevitable impurity.

IPC 8 full level

C22C 37/04 (2006.01)

CPC (source: EP KR US)

C21C 1/10 (2013.01 - EP US); **C22C 33/08** (2013.01 - EP US); **C22C 37/04** (2013.01 - EP KR US); **C22C 37/10** (2013.01 - EP US)

Citation (search report)

- [I] EP 2799565 A1 20141105 - HITACHI METALS LTD [JP]
- [I] JP 2011038183 A 20110224 - AISIN TAKAOKA LTD
- [A] JP 2012036465 A 20120223 - JFE STEEL CORP
- [A] EP 2471960 A1 20120704 - CASA MARISTAS AZTERLAN [ES], et al
- [A] US 2015086410 A1 20150326 - TOBITA TOMOYUKI [JP], et al
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- See also references of WO 2017056522A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3358026 A1 20180808; **EP 3358026 A4 20190417**; **EP 3358026 B1 20210602**; CN 108138275 A 20180608; CN 108138275 B 20201027; JP 6191781 B1 20170906; JP WO2017056522 A1 20171005; KR 102539284 B1 20230602; KR 20180059459 A 20180604; US 2019055631 A1 20190221; WO 2017056522 A1 20170406

DOCDB simple family (application)

EP 16850700 A 20160229; CN 201680056369 A 20160229; JP 2016055973 W 20160229; JP 2016546552 A 20160229; KR 20187009740 A 20160229; US 201615762520 A 20160229