

Title (en)

PROCESS FOR THE MANUFACTURE OF CASTINGS OF NODULAR CASTIRON

Publication

**EP 0018445 B1 19840606 (DE)**

Application

**EP 79200725 A 19791205**

Priority

DE 2853870 A 19781213

Abstract (en)

[origin: EP0018445A1] 1. Method of producing castings from cast iron with spheroidal graphite with a mixed austenitic-bainitic mixed structure from a melt with the usual amounts of silicon, carbon, phosphorus, sulphur and magnesium and also additional amounts of manganese, molybdenum, possibly copper and possibly nickel, in which the casting is heated to austenitisation temperature and is also maintained, until austenitisation, at this temperature and thereafter is cooled to bainitisation temperature of 350 to 400 degrees C and is held at this temperature for a time corresponding to the required bainite fraction, wherein the melt contains less than 0.3% manganese, 0.2 to 0.8% molybdenum, possibly 0.1 to 1.5% copper and possibly up to 3% nickel and wherein the casting is brought to an austenitisation temperature of 800 to 860 degrees C, is maintained for 10 to 60 minutes at this temperature, is thereafter cooled in a time of less than 2 minutes to the bainitisation temperature and is maintained at this temperature for 5 to 60 minutes.

IPC 1-7

**C21D 5/00; C22C 37/04**

IPC 8 full level

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

CPC (source: EP)

**C21D 5/00** (2013.01); **C22C 37/04** (2013.01)

Cited by

FR2712606A1; EP0347568A3; CN100398672C; EP0144907A3; ITMI20110141A1; EP1384794A1; EP0203050A1; EP1344839A1; EP0639651A1; FR2709133A1; EP0087634A1; FR2522291A1; GB2117000A; DE102008050152A1; WO2004022792A3; US7070666B2; US7497915B2; WO8301959A1

Designated contracting state (EPC)

DE FR GB IT NL SE

DOCDB simple family (publication)

**DE 2853870 A1 19800703; DE 2853870 C2 19870806**; DE 2967045 D1 19840712; EP 0018445 A1 19801112; EP 0018445 B1 19840606; EP 0018445 B2 19900103; JP S5594459 A 19800717; JP S5910988 B2 19840313; ZA 796750 B 19801126

DOCDB simple family (application)

**DE 2853870 A 19781213**; DE 2967045 T 19791205; EP 79200725 A 19791205; JP 16136579 A 19791212; ZA 796750 A 19791212