

Title (en)
Pressure die-casting method and products obtained thereby

Title (de)
Druckgussverfahren und dabei erhaltene Produkte

Title (fr)
Procédé de coulée sous pression et produits ainsi obtenus

Publication
EP 0972593 A1 20000119 (EN)

Application
EP 99810629 A 19990713

Priority
JP 19819898 A 19980714

Abstract (en)
After a cavity 2 of a die-casting mold 1 is evacuated to exclude gas, oxygen gas is blown into the cavity 2, and then an molten metal 5 is forcibly injected into the cavity 2. The cavity 2 is decompressed to a degree of vacuum not more than 100 millibar by evacuation through a suction nozzle 11. The oxygen gas is blown through a nozzle 14 into the cavity 2 so as to increase a pressure of the cavity 2 higher than the atmospheric pressure. When the molten metal 5 is injected into the cavity 2 clarified in this way, inclusion of gas is perfectly prohibited. As a result, an obtained die-cast products is free from defects such as blowholes or porosity caused by inclusion of gas and so useful as a functional member as well as a structural member. <IMAGE>

IPC 1-7
B22D 17/14

IPC 8 full level
B22D 17/14 (2006.01)

CPC (source: EP)
B22D 17/14 (2013.01)

Citation (search report)

- [YA] WO 9010516 A1 19900920 - ALUMINUM CO OF AMERICA [US]
- [Y] GB 1183468 A 19700304 - INT LEAD ZINC RES [US]
- [XY] PATENT ABSTRACTS OF JAPAN vol. 004, no. 033 (M - 003) 21 March 1980 (1980-03-21)
- [XY] PATENT ABSTRACTS OF JAPAN vol. 096, no. 012 26 December 1996 (1996-12-26)
- [XY] PATENT ABSTRACTS OF JAPAN vol. 006, no. 157 (M - 150) 18 August 1982 (1982-08-18)

Cited by
CN105414531A; CN113263163A

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