

Title (en)
APPARATUS AND METHOD FOR POURING MOLTEN METAL

Publication
EP 0111213 A3 19840801 (DE)

Application
EP 83111706 A 19831123

Priority
DE 3244824 A 19821203

Abstract (en)
[origin: US4741463A] A compact and re-usable ingate device for transferring molten metal to a mold during casting employs a substantially unitary structure resembling a trapezoidal block of refractory material. Within the block are a generally cylindrical rotation chamber, an inlet channel which receives the molten metal and injects it tangentially into the rotation chamber, so that the metal swirls rapidly to separate nonmetallic inclusions, and an outlet channel which conveys the cleaned metal to the mold. The rotation chamber may have a bottom that is positioned below the opening to the outlet channel and walls which slope outward slightly from the bottom to at least the opening, so that inclusions and metal that has solidified at the bottom can be removed from the rotation chamber. Alternately the outlet channel may open into the bottom at an eccentric position, so that all of the molten metal will be drained.

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B22D 35/04; **B22C 9/08**

IPC 8 full level
B22C 9/08 (2006.01); **B22D 35/04** (2006.01)

CPC (source: EP US)
B22C 9/08 (2013.01 - EP US); **B22D 35/04** (2013.01 - EP US)

Citation (search report)
• [Y] DE 2514492 A1 19761014 - KRUPP GMBH
• [Y] FR 2120109 A1 19720811 - FISCHER AG GEORG
• [Y] DE 2830811 A1 19800131 - EISEN U STAHLWERK PLEISSNER GM
• [Y] DE 2215273 A1 19731031 - NIELSEN FRIEDRICH

Cited by
US9660265B2; US7432017B2; US6432584B1; US6413285B1; US9905860B2; US6413284B1; US6737197B2; US9666850B2; US10529971B2;
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DE 3244824 C2 19851024; DE 3371752 D1 19870702; US 4741463 A 19880503

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