

Title (en)

Continuous metal tube casting method, apparatus and product.

Title (de)

Verfahren zum Stranggiessen metallischer Rohre, Vorrichtung zur Durchführung des Verfahrens und Erzeugnis.

Title (fr)

Procédé pour la coulée continue de tubes métalliques, appareil pour sa mise en oeuvre et produit obtenu.

Publication

EP 0168693 A1 19860122 (EN)

Application

EP 85108035 A 19850628

Priority

US 62713584 A 19840702

Abstract (en)

Dense, homogeneous tubular metal products (33) such as pipe is cast in long lengths continuously by introducing liquid metal (32) into the lower portion of an annular-shaped casting vessel (11). The liquid metal (32) is withdrawn in the presence of at least one elongated upwardly travelling alternating electromagnetic levitation field and a second inner electromagnetic containment field for maintaining the tubular liquid metal column (26) in a substantially weightless and pressureless condition while solidifying. The resulting solidified tubular metal product (33) is withdrawn from the upper portion of the field, cooled and further processed to result in a desired end product.

IPC 1-7

B22D 11/01

IPC 8 full level

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CPC (source: EP KR)

B22D 11/015 (2013.01 - EP); **B22D 11/145** (2013.01 - EP); **B22D 27/02** (2013.01 - KR)

Citation (search report)

- [AD] US 4126175 A 19781121 - GETSELEV ZINOVY N
- [A] EP 0050581 A1 19820428 - ARBED [LU]
- [A] FR 2352612 A1 19771223 - PONT A MOUSSON [FR]
- [A] GB 2048139 A 19801210 - ARBED
- [A] FR 2414969 A1 19790817 - CREUSOT LOIRE [FR]

Cited by

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Designated contracting state (EPC)

AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0168693 A1 19860122; **EP 0168693 B1 19890315**; AT E41335 T1 19890415; AU 4396585 A 19860109; AU 571703 B2 19880421; BR 8502497 A 19860506; DE 3568719 D1 19890420; ES 544412 A0 19860716; ES 554063 A0 19861116; ES 554064 A0 19861116; ES 8608964 A1 19860716; ES 8700838 A1 19861116; ES 8700839 A1 19861116; FI 78406 B 19890428; FI 78406 C 19890810; FI 851737 A0 19850502; FI 851737 L 19860103; HU 205290 B 19920428; HU T48142 A 19890529; IN 163373 B 19880917; JP H0724919 B2 19950322; JP S6130259 A 19860212; KR 860000905 A 19860220; KR 910009998 B1 19911210; MX 170730 B 19930909; PH 26322 A 19920429; PT 80669 A 19850701; PT 80669 B 19870617; ZA 852590 B 19860226

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