

Title (en)

Cylinder for continuous casting machine producing thin metal strips.

Title (de)

Zylinder für Stranggiessvorrichtung zur Herstellung dünnen Metallbandes.

Title (fr)

Cylindre pour dispositif de coulée continue directe de bandes minces de métal liquide.

Publication

EP 0421908 B1 19940302 (FR)

Application

EP 90470053 A 19900921

Priority

FR 8912855 A 19891002

Abstract (en)

[origin: EP0421908A1] This cylinder (1) is covered by a combination of two metal sleeves (3, 4) forming two superposed cylindrical layers and chosen from materials such that the inner sleeve (3) has a coefficient of expansion greater than that of the outer sleeve (4) in contact with the molten metal; the differential thermal expansion experienced by the two sleeves (3, 4) during casting of the molten metal prevents the cylinder (1) from bulging and, consequently, guarantees the production of cast products having a satisfactory thickness profile. Application to the continuous casting of molten steel. <IMAGE>

IPC 1-7

B22D 11/06

IPC 8 full level

B22D 11/06 (2006.01)

CPC (source: EP KR)

B22D 11/06 (2013.01 - KR); **B22D 11/0651** (2013.01 - EP)

Cited by

AU659364B1; EP0692329A3; WO9852706A1; WO03006193A1; EP0687515A1

Designated contracting state (EPC)

AT BE CH DE DK ES GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0421908 A1 19910410; EP 0421908 B1 19940302; AT E102098 T1 19940315; AU 6316390 A 19910411; AU 634818 B2 19930304; BR 9004911 A 19910910; CA 2026244 A1 19910403; CN 1034480 C 19970409; CN 1050693 A 19910417; CS 275363 B2 19920219; CS 9004774 A3 19920219; DD 298216 A5 19920213; DE 69007001 D1 19940407; DE 69007001 T2 19940714; DK 0421908 T3 19940606; ES 2050991 T3 19940601; FI 904829 A0 19901001; FI 91134 B 19940215; FI 91134 C 19940525; FR 2652525 A1 19910405; FR 2652525 B1 19940610; HU 208931 B 19940228; HU 906281 D0 19910328; HU T57104 A 19911128; IE 903457 A1 19910424; JP 3262560 B2 20020304; JP H03133550 A 19910606; KR 0169721 B1 19990115; KR 910007604 A 19910530; NO 904263 D0 19901001; NO 904263 L 19910403; PL 164353 B1 19940729; PL 287149 A1 19910923; PT 95480 A 19910625; YU 185390 A 19931020; ZA 907828 B 19920527

DOCDB simple family (application)

EP 90470053 A 19900921; AT 90470053 T 19900921; AU 6316390 A 19900925; BR 9004911 A 19901001; CA 2026244 A 19900926; CN 90108041 A 19900928; CS 477490 A 19901001; DD 34428090 A 19900928; DE 69007001 T 19900921; DK 90470053 T 19900921; ES 90470053 T 19900921; FI 904829 A 19901001; FR 8912855 A 19891002; HU 628190 A 19901001; IE 345790 A 19900925; JP 26489590 A 19901002; KR 900014896 A 19900920; NO 904263 A 19901001; PL 28714990 A 19901002; PT 9548090 A 19901001; YU 185390 A 19901001; ZA 907828 A 19901001