

Title (en)
COOLING DEVICE FOR A PRESS FOR THE EXTRUSION OF LIGHT METALS

Publication
EP 0281515 B1 19930811 (DE)

Application
EP 88810090 A 19880215

Priority
CH 78487 A 19870302

Abstract (en)
[origin: US4829802A] To increase the extrusion speed for extrusion of light-weight metal such as aluminum, without incurring hot short cracks, or fissures, and retaining high-quality smooth surface of the extruded material, the region of the extrusion chamber immediately ahead of the extrusion die (3) is cooled by placing a cooling ring (12, 12') between the bore (9) of the extrusion cylinder in which the ram piston (13) operates. The cooling ring may be a unitary structure, or a multi-part structure, in which an independent inner ring is located within a cooling ring (12). For mechanical strength, a prestressing outer ring (20) is shrink-fitted around the cooling ring. The outer ring is retained, for example by screws (24), on the cylinder (2) within which the extrusion chamber (9, 10) is located. The cooling fluid may be water, a vaporizable liquid, or a gas, and is separated from the billet (1) within the extrusion chamber.

IPC 1-7
B21C 29/00

IPC 8 full level
B21C 29/00 (2006.01); **B21C 29/04** (2006.01)

CPC (source: EP US)
B21C 29/00 (2013.01 - EP US)

Cited by
CN103143586A

Designated contracting state (EPC)
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0281515 A2 19880907; EP 0281515 A3 19900829; EP 0281515 B1 19930811; AT E92799 T1 19930815; CA 1317910 C 19930518; DE 3883027 D1 19930916; JP H0436765 B2 19920617; JP S63230221 A 19880926; NO 167264 B 19910715; NO 167264 C 19911023; NO 880898 D0 19880301; NO 880898 L 19880905; US 4829802 A 19890516

DOCDB simple family (application)
EP 88810090 A 19880215; AT 88810090 T 19880215; CA 560168 A 19880301; DE 3883027 T 19880215; JP 4767288 A 19880302; NO 880898 A 19880301; US 16049688 A 19880224