

Title (en)

METHOD FOR PRODUCING METAL SHAPES WITH A POLYGONAL CROSS-SECTION BY MEANS OF CONTINUOUS CASTING ON A DOUBLE-FLANGED WHEEL AND CONTINUOUS ROLLING

Title (de)

VERFAHREN ZUR HERSTELLUNG VON METALLISCHEN PROFILEN MIT POLYGONALEM QUERSCHNITT DURCH KONTINUIERLICHES GIessen MIT HILFE EINES RILLENGIESSRADES UND KONTINUIERLICHES WALZEN

Title (fr)

PROCEDE DE FABRICATION DE PROFILES METALLIQUES DE SECTION POLYGONALE PAR COULEE Continue SUR ROUE A GORGE ET LAMINAGE CONTINU

Publication

EP 1085949 A1 20010328 (FR)

Application

EP 99925059 A 19990609

Priority

- FR 9901360 W 19990609
- FR 9807478 A 19980610

Abstract (en)

[origin: US6584669B1] The invention relates to a method for producing metal shapes with a partially or totally polygonal cross-section by means of continuous casting in a double-flanged wheel and continuous rolling using a series of at least 3 pairs of rollers with a peripheral flange, whereby said rollers are alternately horizontally and vertically disposed in a symmetrical position with respect to said shape. The inventive method is characterised in that the flanges of the first pairs of rollers are identical to those used to produce shapes with a circular cross-section; the last pair of rollers has flanges defining a section that corresponds substantially to that of the desired shape; the section formed by the grooves of the last pair of rollers has curve radii of between 1 and 5 mm at the highest points of the polygon; the sides of the polygon that are not parallel to the air gap pertaining to the last pair of rollers have a clearance angle of ½-3° in comparison with the corresponding of the section of the final shape. The invention can be used to produce copper or aluminum alloy shapes for drawing or and/or subsequent redrawing.

IPC 1-7

B21B 1/46; B21B 3/00; B21B 1/18; B21C 37/04

IPC 8 full level

B21B 1/18 (2006.01); **B21B 1/46** (2006.01); **B21B 3/00** (2006.01); **B21C 1/00** (2006.01); **B21C 37/04** (2006.01); **B22D 11/06** (2006.01);
B21B 15/00 (2006.01)

CPC (source: EP KR US)

B21B 1/18 (2013.01 - EP US); **B21B 1/46** (2013.01 - KR); **B21B 1/463** (2013.01 - EP US); **B21B 3/003** (2013.01 - EP US);
B21C 37/045 (2013.01 - EP US); **B22D 11/0602** (2013.01 - EP US); **B21B 2003/001** (2013.01 - EP US); **B21B 2015/0028** (2013.01 - EP US);
Y10T 29/49991 (2015.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB IE IT LI SE

DOCDB simple family (publication)

US 6584669 B1 20030701; AT E209975 T1 20011215; AU 4147999 A 19991230; BR 9911085 A 20010220; CA 2334851 A1 19991216;
CN 1155446 C 20040630; CN 1309591 A 20010822; DE 69900558 D1 20020117; DE 69900558 T2 20020718; DK 1085949 T3 20020708;
EP 1085949 A1 20010328; EP 1085949 B1 20011205; ES 2167117 T3 20020501; FR 2779672 A1 19991217; FR 2779672 B1 20000728;
JP 2002517316 A 20020618; KR 20010052690 A 20010625; MX PA00012159 A 20020417; RU 2217250 C2 20031127; UA 57618 C2 20030616;
WO 9964176 A1 19991216

DOCDB simple family (application)

US 70071701 A 20010129; AT 99925059 T 19990609; AU 4147999 A 19990609; BR 9911085 A 19990609; CA 2334851 A 19990609;
CN 99808575 A 19990609; DE 69900558 T 19990609; DK 99925059 T 19990609; EP 99925059 A 19990609; ES 99925059 T 19990609;
FR 9807478 A 19980610; FR 9901360 W 19990609; JP 2000553227 A 19990609; KR 20007013945 A 20001208; MX PA00012159 A 19990609;
RU 2001101494 A 19990609; UA 01010169 A 19990609