

Title (en)

A method of rolling extrusion with regulated axis spacing of axi-symmetrical stepped parts

Title (de)

Verfahren zum Walzen/Fliesspressen mit geregelter Achsabstand von axialsymmetrisch gestuften Teilen

Title (fr)

Procédé de laminage à régulation d'espacement à axe régulé de parties étagées à axes symétriques

Publication

EP 2842649 B1 20160518 (EN)

Application

EP 13461569 A 20131230

Priority

PL 40429413 A 20130612

Abstract (en)

[origin: EP2842649A1] The way of rolling extrusion with regulated axis spacing of axi-symmetrical stepped parts is characterized in that a formed semi-finished product (3) in the form of a bar or tube part is placed in the seat of the front rotary holder (1) and in the seat of the back rotary holder (2), next, the front rotational holder (1) and back rotational holder (2) together with semi-finished product (3) move with a translational motion with constant velocity (V) into the workspace, which is made by the same three (4a), (4b) and (4c) formed rolls, next the same three (4a), (4b) and (4c) formed rolls are put into rotational motion in the same direction and with the same velocity (n 1), then revolution motion of the same three (4a), (4b) and (4c) formed rolls is activated with the velocity (n 2) and the same three (4a), (4b) and (4c) formed rolls are brought closer to the semi-finished product (1), yet rotary movement trajectories (7a), (7b) and (7c) of the same three (4a), (4b) and (4c) formed rolls are of spiral shape, next the semi-finished product (3) is affected by the (4a), (4b) and (4c) formed rolls working (4a 1), (4a 2), (4b 1), (4b 2), (4c 1) and (4c 2) surfaces and the semi-finished product (3) is put into rotary motion with constant velocity (n 3) in the direction opposite to the direction of rotations of the same three (4a), (4b) and (4c) formed rolls.

IPC 8 full level

B21D 22/14 (2006.01); **B21H 1/18** (2006.01)

CPC (source: EP)

B21D 22/14 (2013.01); **B21H 1/18** (2013.01)

Citation (opposition)

Opponent : Leifeld Metal Spinning AG

- EP 2422896 A1 20120229 - LUBELSKA POLT [PL]
- JP S58110137 A 19830630 - TOKYO SHIBAURA ELECTRIC CO
- US 2003140674 A1 20030731 - SUZUKI YUKINORI [JP], et al
- EP 2127775 A1 20091202 - REPKON MACHINE AND TOOL INDUST [TR]
- DE 102007041149 B3 20090402 - UNIV DRESDEN TECH [DE], et al
- DE 3144695 A1 19830519 - MITSUBISHI HEAVY IND LTD [JP]
- EP 2210682 B1 20120314 - LEIFELD METAL SPINNING AG [DE]
- EP 2422897 A1 20120229 - LUBELSKA POLT [PL]

Cited by

EP3733322A1; CN114160605A; WO2022122645A1; US11484924B2

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