

Title (en)

TOOL FOR PRODUCING A GEAR PART HAVING EXTERNAL TOOTHING

Title (de)

WERKZEUG ZUR HERSTELLUNG EINES AUSSEN VERZAHNTEN GETRIEBETEILES

Title (fr)

OUTIL UTILISE POUR PRODUIRE UNE PARTIE D'ENGRENAGE A DENTURE EXTERIEURE

Publication

**EP 1119426 A1 20010801 (DE)**

Application

**EP 99914413 A 19990210**

Priority

- DE 9900387 W 19990210
- DE 29817979 U 19981008

Abstract (en)

[origin: WO0021699A1] The invention relates to a tool for producing a gear part having external toothing using a method of shaping by compression or by rolling. Said tool comprises a receiving tool (1) for supporting the work piece (3) which is impinged upon by a projection (2). Said receiving tool is driven to perform a rotational movement. The inventive tool additionally comprises a roller (4) which is mounted in a support in such a way that it can pivot about an axis (Y) that is parallel to the axis (X) of the receiving tool (1). Said roller can be adjusted in the direction of its Y axis in relation to the work piece (3). It is subdivided in the direction of its Y axis into several consecutive shaping areas with increasing tooth depths. The roller (4) can be applied to the work piece (3) in a perpendicular direction to its Y axis in order to carry out the compression method. The tooth height of the individual shaping areas increases while the tip circle remains the same across all shaping areas. The root radius of the individual shaping areas decreases and the tooth depth increases from one shaping area to the next shaping area. As a result, the tooth thickness at the root circle increases in all of the shaping areas.

IPC 1-7

**B21H 5/02**

IPC 8 full level

**B21H 5/00** (2006.01); **B21D 53/28** (2006.01); **B21H 5/02** (2006.01); **B21K 1/30** (2006.01)

CPC (source: EP US)

**B21D 53/28** (2013.01 - EP US); **B21H 5/02** (2013.01 - EP US); **B21K 1/30** (2013.01 - EP US); **Y10T 29/49471** (2015.01 - EP US)

Citation (search report)

See references of WO 0021699A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

**DE 29817979 U1 19990114**; DE 59903494 D1 20030102; EP 1119426 A1 20010801; EP 1119426 B1 20021120; ES 2183537 T3 20030316; JP 2002527243 A 20020827; US 6470724 B1 20021029; WO 0021699 A1 20000420

DOCDB simple family (application)

**DE 29817979 U 19981008**; DE 59903494 T 19990210; DE 9900387 W 19990210; EP 99914413 A 19990210; ES 99914413 T 19990210; JP 2000575651 A 19990210; US 80675301 A 20010403