

Title (en)

Method or making a component out of a tube of cold workable material, in particular metal

Title (de)

Herstellverfahren für ein Bauteil aus einem Rohr aus kaltumformbarem Material, insbesondere Metall

Title (fr)

Procédé de fabrication d'une pièce à partir d'un tube de matériel déformable à froid, en particulier en métal

Publication

**EP 0894551 A3 20020116 (DE)**

Application

**EP 98111580 A 19980624**

Priority

DE 19733008 A 19970731

Abstract (en)

[origin: EP0894551A2] The method concerns production of an article out of a pipe made of cold-formable material, in particular, a metal pipe. The article with different cross sections is preliminarily formed using a forming tool, and is subsequently brought into its final form by internal pressure. To produce a shaft like article with partial and/or rotationally symmetric special form elements, a pipe is chosen whose diameter corresponds to the maximum diameter of such form elements. Preliminary forming of the pipe takes place at least in the region of each form element by means of rolling and/or by a bulge buckle process. At least the regions with special form elements are subjected to internal high pressure forming processes to bring the article into its final form.

IPC 1-7

**B21D 26/02; B21D 53/84**

IPC 8 full level

**B21D 26/02** (2011.01); **B21D 26/033** (2011.01); **B21D 53/84** (2006.01)

CPC (source: EP)

**B21D 15/10** (2013.01); **B21D 26/033** (2013.01)

Citation (search report)

- [DXY] EP 0621091 A1 19941026 - GEN MOTORS CORP [US]
- [DY] DE 3528464 A1 19870219 - AUDI AG [DE]
- [DY] DE 3439973 A1 19860507 - AUDI AG [DE]
- [DA] US 5070717 A 19911210 - BOYD DAVID B [US], et al
- [DA] US 5557961 A 19960924 - NI CHI-MOU [US], et al

Cited by

DE102016107950B4; DE102016107950A1; WO2017186219A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0894551 A2 19990203; EP 0894551 A3 20020116; EP 0894551 B1 20041215;** DE 59812377 D1 20050120; ES 2230635 T3 20050501

DOCDB simple family (application)

**EP 98111580 A 19980624;** DE 59812377 T 19980624; ES 98111580 T 19980624