

Title (en)
METHOD OF MAKING A CAMSHAFT

Publication
EP 0313985 B1 19930317 (DE)

Application
EP 88117466 A 19881020

Priority
DE 3736453 A 19871028

Abstract (en)
[origin: EP0313985A2] In a method of making a cam shaft from a tube, which is provided with bearing locations and with cams, or from a blank which has a cam shape, the shape of the cam shaft with the cams and the bearing locations is formed into the tube or blank by rotary swaging and round kneading by tool segments. In a first step, a blank (9) in the shape of a cam is subjected in the region of the bearing locations (13) of the cam shaft to preforming by forging or swaging, to give an at least approximately circular shape. In a second step, both the bearing locations (13) and also the remaining regions of the cam shaft are formed by the swaging and round kneading by tool elements which at least partially surround the blank and exert the radial pressures on the latter, altering its shape and cross-section, to give the shape of the cam shaft with the cams (16) and the bearing locations (13). <IMAGE>

IPC 1-7
B21K 1/08

IPC 8 full level
B21K 1/12 (2006.01); **B21K 1/08** (2006.01); **F16H 53/02** (2006.01)

CPC (source: EP KR US)
B21J 5/12 (2013.01 - KR); **B21J 9/06** (2013.01 - KR); **B21K 1/06** (2013.01 - KR); **B21K 1/063** (2013.01 - EP US); **B21K 1/08** (2013.01 - EP US); **Y10S 72/713** (2013.01 - EP US); **Y10T 29/17** (2015.01 - EP US); **Y10T 29/49286** (2015.01 - EP US); **Y10T 29/49288** (2015.01 - EP US); **Y10T 29/49293** (2015.01 - EP US); **Y10T 74/2101** (2015.01 - EP US)

Cited by
CN107442725A; CN105710273A; EP1371816B1

Designated contracting state (EPC)
AT DE ES FR GB IT NL SE

DOCDB simple family (publication)
EP 0313985 A2 19890503; EP 0313985 A3 19900816; EP 0313985 B1 19930317; AT E86897 T1 19930415; DE 3736453 A1 19890511; DE 3879371 D1 19930422; ES 2039552 T3 19931001; JP H01148434 A 19890609; KR 890006320 A 19890613; US 5040294 A 19910820

DOCDB simple family (application)
EP 88117466 A 19881020; AT 88117466 T 19881020; DE 3736453 A 19871028; DE 3879371 T 19881020; ES 88117466 T 19881020; JP 26835088 A 19881026; KR 880013933 A 19881025; US 47105990 A 19900129