

Title (en)

METHOD AND DEVICE FOR INCREASING DIAMETER OF METAL SHAFT MATERIAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUM STAUCHEN EINER METALLISCHEN WELLE

Title (fr)

PROCEDE ET DISPOSITIF PERMETTANT D'ACCROITRE LE DIAMETRE D'UN TUBE METALLIQUE

Publication

EP 1120178 A1 20010801 (EN)

Application

EP 00900827 A 20000119

Priority

- JP 0000237 W 20000119
- JP 5135599 A 19990120
- JP 8216499 A 19990217
- JP 10305699 A 19990304
- JP 11697999 A 19990319
- JP 15571399 A 19990602
- JP 24259099 A 19990830

Abstract (en)

Method and apparatus for diametrically expanding a desired part of a metal shaft which can be a rod or a pipe, wherein the apparatus includes a driving rotary section (4) and a driven rotary section (6) arranged at a predetermined distance (D), each of the rotary sections (4) and (6) including a holder for holding a work, a pressing device (8) for pressing the work held by the holders along the length of the apparatus, and a biasing device (7) for declining the axis of the work, so that the work held by the holders at the distance (D) is rotated around its axis, and one of the holders is forced by the pressing device toward the other to carry out the diametral expansion, and then the work is bent back and straightened up. <IMAGE>

IPC 1-7

B21J 5/08; **B21D 41/02**

IPC 8 full level

B21D 17/02 (2006.01); **B21F 5/00** (2006.01); **B21J 5/08** (2006.01); **B21J 9/02** (2006.01); **B21K 1/12** (2006.01)

CPC (source: EP KR)

B21D 17/025 (2013.01 - EP); **B21F 5/00** (2013.01 - EP); **B21J 5/08** (2013.01 - EP KR); **B21J 9/025** (2013.01 - EP); **B21K 1/12** (2013.01 - EP)

Citation (search report)

See references of WO 0043149A1

Cited by

CN106102954A

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1120178 A1 20010801; CA 2325078 A1 20000727; KR 100720196 B1 20070521; KR 20010092246 A 20011024; WO 0043149 A1 20000727

DOCDB simple family (application)

EP 00900827 A 20000119; CA 2325078 A 20000119; JP 0000237 W 20000119; KR 20007010436 A 20000920