

Title (en)
Fastening mechanism in a tool for a hydroforming process

Title (de)
Befestigungsvorrichtung in einem Werkzeug zum Innenhochdruck-Umformverfahren

Title (fr)
Dispositif de fixation dans un outil pour un procédé d' hydroformage

Publication
EP 1080802 A3 20030102 (DE)

Application
EP 00117136 A 20000810

Priority
DE 19939512 A 19990820

Abstract (en)
[origin: EP1080802A2] The guide bushing (5) is clamped in the tool (1,2) in the form of a clamping ring (7,7a,7b) concentrically enclosing part of the bushing length, the ring in turn connected to a pressure source (9). The ring is pre-tensioned by a screw (8) arranged in the block (4) and balls allocated to the block recesses form retractable and extendable part of the bushing (5). The block itself is pre-tensioned into the tool and is ringed in part concentrically by a flexible clamping ring made of yielding material and also connected to a pressure source (12).

IPC 1-7
B21D 26/02

IPC 8 full level
B21D 37/14 (2006.01); **B21D 26/02** (2011.01); **B21D 26/035** (2011.01); **B21D 26/047** (2011.01); **B21D 37/00** (2006.01)

CPC (source: EP KR US)
B21D 26/035 (2013.01 - EP KR US); **B21D 26/047** (2013.01 - EP US); **B21D 37/00** (2013.01 - EP US); **Y10T 83/9476** (2015.04 - EP US)

Citation (search report)
• [DA] DE 19506067 C1 19960620 - KRUPP AG HOESCH KRUPP [DE]
• [A] US 5398533 A 19950321 - SHIMANOVSKI BRUCE S [US], et al
• [A] US 5666840 A 19970916 - SHAH SANJAY MAHASUKHLAL [US], et al

Designated contracting state (EPC)
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DOCDB simple family (publication)
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