Title (en)

Mandrel for digital printing

Title (de)

Spanndorn für den Digitaldruck

Title (fr)

Mandrin pour l'impression digitale

Publication

EP 1782951 A1 20070509 (DE)

Application

EP 05110323 A 20051103

Priority

EP 05110323 A 20051103

Abstract (en)

Mandrel has several clamping segments (2a) forming cylindrical clamping surface (16) for engaging inner surface of hollow body and the clamping segments are guided to move radially in a synchronous manner. A power transmission device (10,13) is arranged inside the mandrel for controlling radial movement of the clamping segments by which the clamped hollow body is moved in a precisely controlled manner. An independent claim is also included for procedure for accurate positioning and controlling the hollow body.

IPC 8 full level

B41F 17/00 (2006.01)

CPC (source: EP US)

B41F 17/002 (2013.01 - EP US)

Citation (applicant)

US 6767357 B2 20040727 - UEHARA HIROYUKI [JP], et al

Citation (search report)

- [XA] US 3960073 A 19760601 - RUSH JOHN E
- [X] US 2578953 A 19511218 - TYRRELL EMMET R
- [X] US 2909338 A 19591020 - GIUSEPPE COZZO
- [X] US 3356019 A 19671205 - ZURICK ALBERT T
- [X] US 3548745 A 19701222 - SIRVET ENN, et al

Cited by

CN115872237A; CN103192599A; CN112805154A; US11571912B2; WO2018083162A1; WO2020072061A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1782951 A1 20070509; **EP 1782951 B1 20071212**; **EP 1782951 B8 20080528**; AT E380658 T1 20071215; AU 2006310477 A1 20070510; AU 2006310477 B2 20110818; BR PI0618252 A2 20110823; BR PI0618252 B1 20180522; CA 2628334 A1 20070510; CA 2628334 C 20141216; CN 101351340 A 20090121; CN 101351340 B 20101229; DE 502005002250 D1 20080124; ES 2298951 T3 20080516; IL 191223 A 20101230; JP 2009514707 A 20090409; JP 5300484 B2 20130925; NZ 568203 A 20101029; PL 1782951 T3 20080530; RU 2008122059 A 20091220; RU 2422287 C2 20110627; UA 95618 C2 20110825; US 2008282913 A1 20081120; US 8708271 B2 20140429; WO 2007051848 A1 20070510; WO 2007051848 A9 20070816; ZA 200804453 B 20090225

DOCDB simple family (application)

EP 05110323 A 20051103; AT 05110323 T 20051103; AU 2006310477 A 20061103; BR PI0618252 A 20061103; CA 2628334 A 20061103; CN 200680050329 A 20061103; DE 502005002250 T 20051103; EP 2006068090 W 20061103; ES 05110323 T 20051103; IL 19122308 A 20080501; JP 2008539410 A 20061103; NZ 56820306 A 20061103; PL 05110323 T 20051103; RU 2008122059 A 20061103; UA A200807572 A 20061103; US 9253006 A 20061103; ZA 200804453 A 20080522