



(51) International Patent Classification:
E21B 47/08 (2006.01) *G01B 5/12* (2006.01)

(21) International Application Number:
PCT/EP2010/002335

(22) International Filing Date:
14 April 2010 (14.04.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/425,411 17 April 2009 (17.04.2009) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

[Continued on next page]

(54) Title: MULTIPLE STAGE MECHANICAL DRIFT TOOL

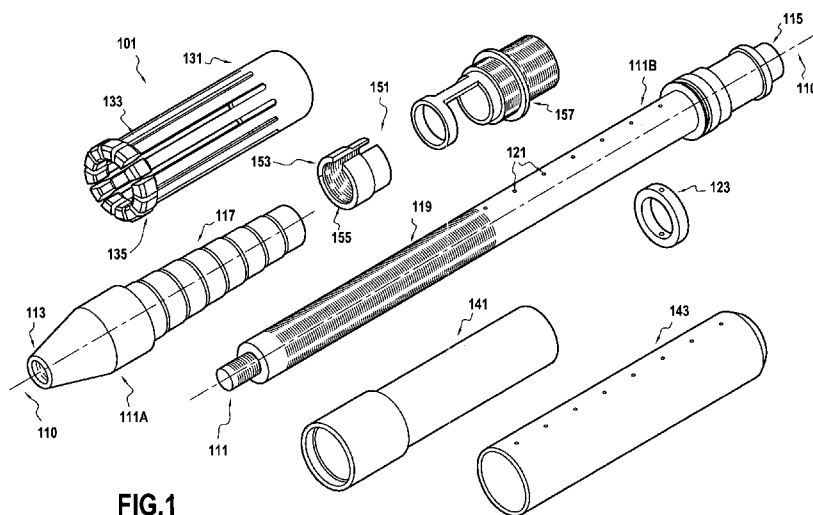


FIG.1

(57) Abstract: A downhole tool for measuring a diameter within a borehole includes a mandrel having a first end and a second end with an axis defined therethrough. A tapered surface is formed on an outside surface of the mandrel such that a first end of the tapered surface has a larger diameter than a second end of the tapered surface. The downhole tool further includes a collet disposed about the mandrel such that the collet is configured to move along the axis of the mandrel with respect to the mandrel in a direction from the first end of the mandrel to the second end of the mandrel. A method of measuring a diameter within a borehole, using a downhole tool including a mandrel having a first end, a second end, and an axis defined therethrough; and a collet disposed about the mandrel, the method includes: disposing the downhole tool into the borehole such that the first end of the mandrel enters the borehole before the second end of the mandrel; and applying a force to the second end of the downhole tool, upon the downhole tool contacting an obstruction in the borehole. Based on the force applied to the downhole tool, the collet moves along the axis of the mandrel with respect to the mandrel such that an outer diameter of the downhole tool decreases. A method of manufacturing a downhole tool for measuring a diameter within a borehole includes providing a mandrel having a first end and a second end with an axis defined therethrough, forming a tapered surface on an outside surface of the mandrel such that a first end of the tapered surface has a larger diameter than a second end of the tapered

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CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,

MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

16 December 2010