



(51) International Patent Classification:

E21B 33/14 (2006.01) *E21B 43/04* (2006.01)
E21B 34/14 (2006.01)

(21) International Application Number:

PCT/US2013/020245

(22) International Filing Date:

4 January 2013 (04.01.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/345,418 6 January 2012 (06.01.2012) 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, BN, BR, BW, BY, BZ, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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:

13 March 2014

(54) Title: ONE TRIP TOE-TO-HEEL GRAVEL PACK AND LINER CEMENTING ASSEMBLY

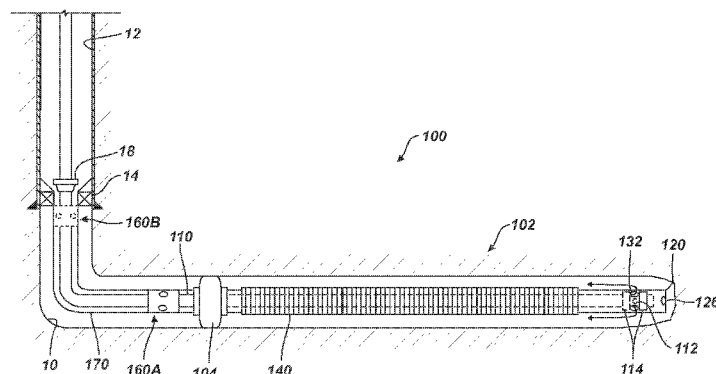


FIG. 2

(57) Abstract: A gravel packing assembly gravel packs a horizontal borehole (10). Operators wash down the borehole using an inner string (110) in a first position by flowing fluid from the inner string (110) through the apparatus' toe. Operators then gravel pack by moving the inner string (110) to one or more flow ports (132, 132A, 132B) between a screen (140) and the toe. Slurry flows into the borehole from the flow ports (132, 132A, 132B), and returns from the borehole flow through the screen (140). The gravel in the slurry can pack the borehole in an alpha-beta wave from toe to heel. In another condition, operators can move the inner string to a second flow port so slurry can flow into the borehole through a shunt extending from the second flow port. When gravel packing is done, operators move the inner string (110) to a port collar (160B) in a liner (170) of the assembly to cement the liner (170) in the borehole (10).