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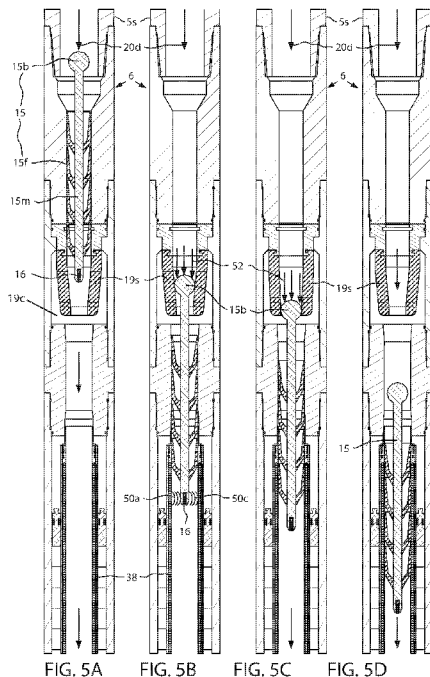
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, 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, SA, SC,

[Continued on next page]

(54) Title: RADIO FREQUENCY IDENTIFICATION TAG DELIVERY SYSTEM



(57) Abstract: A system for operating a downhole tool includes a tag carrier (15); a RFID tag (16) coupled with the tag carrier (15); and a control sub (6) having a bore extending therethrough, the control sub (6) comprising: an antenna (38) located adjacent to the bore; and a stop (19s) for catching the tag carrier (15), wherein: the radio frequency identification tag (16) is coupled with the tag carrier (15) in relation to the stop (19s) and the antenna (38) such that the radio frequency identification tag (16) is aligned with the antenna (38) when the tag carrier (15) is caught in the stop (19s), and the stop (19s) is operable to allow passage of the tag carrier (15) through the stop (19s) after the tag carrier (15) is caught by the stop (19s).





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, ST, 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, KM, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2016/032268

A. CLASSIFICATION OF SUBJECT MATTER
INV. E21B47/12 E21B23/00 E21B33/16 E21B34/14
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 407 335 A (SCHLUMBERGER HOLDINGS [VG]) 27 April 2005 (2005-04-27)	1,10, 17-21, 24,27, 32,52
Y	page 2, line 5 - page 3, line 19 page 6, line 12 - page 8, line 20 page 9, line 27 - page 10, line 12 page 11, line 6 - line 13 page 14, line 20 - page 15, line 19 page 15, line 20 - page 17, line 6 figures 1, 1A, 1B, 1H, 1L, 2 -----	2-8, 14-16, 28-31, 43, 53-55,57
X	US 2015/027724 A1 (SYMMS JOSHUA V [US]) 29 January 2015 (2015-01-29)	51
Y	paragraphs [0005], [0008] - [0011], [0027], [0029], [0031] - [0034], [0060], [0062] - [0070] figures 1A-1D, 5B, 5C -----	16
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search 7 October 2016	Date of mailing of the international search report 02/01/2017
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Hennion, Dmitri
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2016/032268

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>WO 2008/146012 A2 (CHURCHILL DRILLING TOOLS LTD [GB]; CHUCHILL ANDREW PHILLIP [GB]) 4 December 2008 (2008-12-04)</p> <p>page 2, line 2 - line 15 page 4, line 12 - line 17 page 11, line 8 - line 14 page 12, line 6 - line 18 page 13, line 16 - line 17 page 15, line 3 - line 12 figures 1-3</p> <p>-----</p>	<p>2-8,14, 15, 28-31, 43, 53-55,57</p>

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2016/032268

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-8, 10, 14-21, 24, 27-32, 43, 51-55, 57

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8, 10, 14-21, 24, 27-32, 43, 51-55, 57

System and method for catching, detecting and releasing an RFID tag coupled to a tag carrier downhole

2. claims: 11, 33-35

System for actuation of a downhole actuator/piston

3. claims: 23, 41, 42, 50

System and method for actuation of a downhole seat

4. claims: 9, 22, 25, 26, 40, 56

System and method for launching a tag carrier

5. claims: 36, 37, 44

System and method for circulating (cleaning) a well

6. claims: 13, 38, 39

System for downhole activation using electrical means

7. claims: 12, 58-63

System for downhole actuation using mud pulse telemetry

8. claims: 45-49

Method for cementing a wellbore

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2016/032268

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2407335	A	27-04-2005	NONE

US 2015027724	A1	29-01-2015	AU 2014206225 A1 12-02-2015
			CA 2857844 A1 26-01-2015
			EP 2829684 A1 28-01-2015
			US 2015027724 A1 29-01-2015

WO 2008146012	A2	04-12-2008	NONE
