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[Continued on next page]

(54) Title: A TUBULAR CONNECTION

(57) Abstract: Apparatus and method for connecting tubular members in a wellbore. A host tubular member (101) has reinforcing annular members (106) mounted thereon to provide regions of differing resistance to the radial load. When the host tubular member (101) is expanded radially outwardly, within a second tubular member, each weaker region starts expanding first and seals the host tubular member against the second tubular member prior to the stronger region. Embodiments of host tubular members are described including members of progressive resistance, split rings, gripper elements (116) and sealing elements (118).

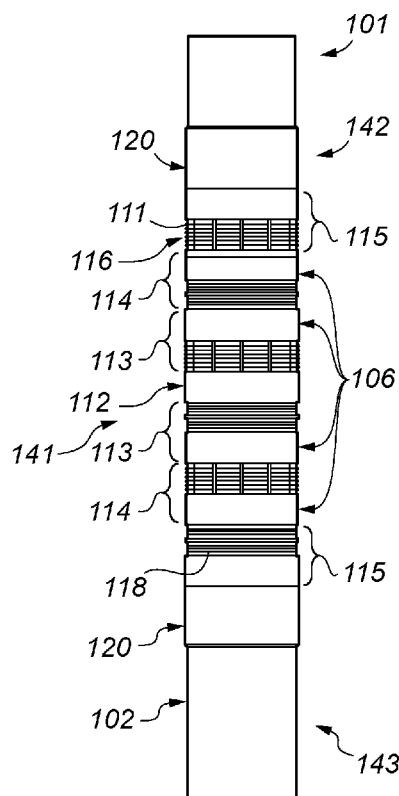


Fig. 5



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.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2013/051698

A. CLASSIFICATION OF SUBJECT MATTER
INV. E21B43/10
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 F16L

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	US 2009/205843 A1 (GANDIKOTA VARADARAJU [US] ET AL) 20 August 2009 (2009-08-20) paragraphs [0008], [0055] - [0059]; figures 15A-16B -----	1-15, 17, 18, 21, 29-35, 38-51
E	GB 2 501 417 A (META DOWNHOLE LTD [GB]) 23 October 2013 (2013-10-23) page 12, line 8 - page 13, line 12 page 14, line 15 - page 15, line 3 figure 4 ----- -/--	1-15, 17, 18, 21, 29-35, 38-51

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 11 July 2014	Date of mailing of the international search report 07/11/2014
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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 Schneiderbauer, K
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INTERNATIONAL SEARCH REPORT

International application No PCT/GB2013/051698

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 8 020 625 B2 (RING LEV [US] ET AL) 20 September 2011 (2011-09-20) column 2, line 50 - line 67 column 6, line 51 - column 7, line 12 -----	1-15,17, 18,21, 29-35, 38-51
A	WO 02/059452 A1 (E2 TECH LTD [NL]; THOMSON NEIL [GB]) 1 August 2002 (2002-08-01) page 7, line 12 - page 8, line 2 page 9, line 16 - line 23 page 13, line 11 - page 14, line 25 page 16, line 12 - line 27 figure 1 -----	1-15,17, 18,21, 29-35, 38-51

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/GB2013/051698

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009205843	A1	20-08-2009	
		AU 2009215521 A1	27-08-2009
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		WO 02059452 A1	01-08-2002

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2013/051698

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.:

"see additional sheet(s)"

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: 1-15, 17, 18, 21, 29-35, 38-51

Apparatus and method for connecting tubular members having a host tubular with expandable portion. This portion having reinforcing annular members to resist radial load so that regions expand prior to other regions of the tubular.

2. claims: 16, 19, 20, 22-28

Annular gripper elements are mounted on the expandable portion.

3. claims: 36, 37

Retaining arrangement on the expandable portion.
