



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
14.08.2013 Bulletin 2013/33

(51) Int Cl.:
E21B 33/128 (2006.01)
E21B 23/06 (2006.01)
E21B 33/124 (2006.01)
E21B 33/12 (2006.01)

(43) Date of publication A2:
18.01.2012 Bulletin 2012/03

(21) Application number: **11166237.5**

(22) Date of filing: **16.05.2011**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(30) Priority: **13.07.2010 US 835684**

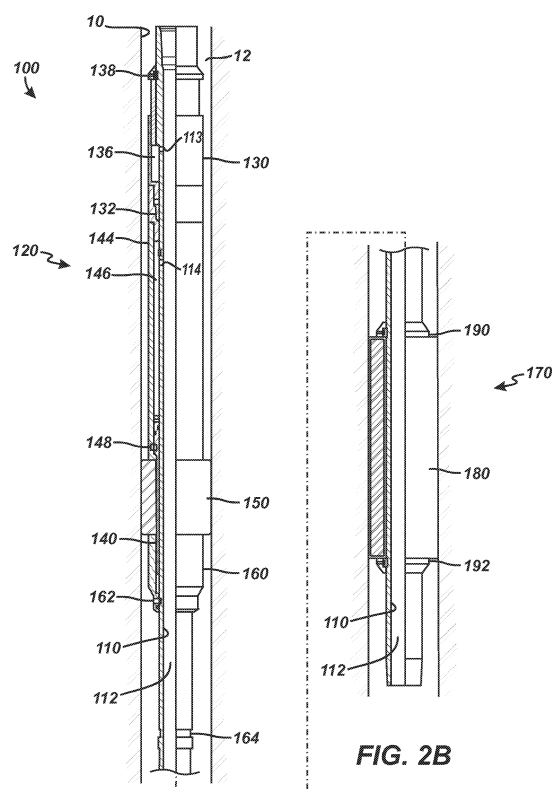
(71) Applicant: **Weatherford/Lamb, Inc.**
Houston
Texas 77027 (US)

(72) Inventors:
• **Wilkin, James F.**
Sherwood Park Alberta T8B 1N3 (CA)
• **Jordan, Henry Joe Jr.**
Willis, TX 77318 (US)

(74) Representative: **Gee, Steven William**
1 South Lynn Gardens,
London Road
Shipston on Stour,
Warwickshire CV36 4ER (GB)

(54) **Downhole packer having tandem packer elements for isolating frac zones**

(57) A tandem packer (100) seals a wellbore annulus with first and second seals. The packer has a body defining a bore therethrough and has a shoulder disposed on the body. A compressible element (150) is disposed on the body adjacent the shoulder. A piston is movably disposed on the body adjacent the compressible element and is activated by fluid pressure communicated through a port in the packer's bore. When actuated, the piston fits between the compressible element and the body to initially expand it outward. With further fluid pressure, the piston compresses the compressible element against the shoulder to expand the element radially outward and produce a first seal with a surrounding surface. A swellable element (180) also disposed on the body is swellable in the presence of an agent and expands radially outward to produce a second seal with the surrounding surface.





EUROPEAN SEARCH REPORT

Application Number
EP 11 16 6237

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X,P	EP 2 258 920 A2 (WEATHERFORD LAMB [US]) 8 December 2010 (2010-12-08) * paragraphs [0046] - [0050]; figure 7 * * the whole document *	1-16	INV. E21B33/128 E21B33/124 E21B23/06 E21B33/12
A	US 49544 A (C. L. NOE) 22 August 1865 (1865-08-22) * the whole document * * inflatable/swellable *	1,5,11, 16	
			TECHNICAL FIELDS SEARCHED (IPC)
			E21B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 3 July 2013	Examiner van Berlo, André
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

2
EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 16 6237

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

03-07-2013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 2258920	A2	08-12-2010	AU 2010201301 A1 14-10-2010
			CA 2697605 A1 30-09-2010
			EP 2258920 A2 08-12-2010
			GB 2469212 A 06-10-2010
			US 2010243235 A1 30-09-2010

US 49544	A	22-08-1865	NONE

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82