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(71) Applicant: **WEATHERFORD/LAMB, INC.** [US/US]; 2000 St. James Place, Houston, TX 77056 (US).

(72) Inventor: **GARCIA, Cesar, G.**; 6407 Lake Chase Ct., Katy, TX 77493 (US).

(74) Agent: **MCDERMOTT, Sean, P.**; Wong Cabello Lutsch Rutherford & Brucculeri LLP, 20333 Tomball Parkway, 6th Floor, Houston, TX 77070 (US).

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(54) Title: SLIDING SLEEVE HAVING CONTRACTING, RINGED BALL SEAT

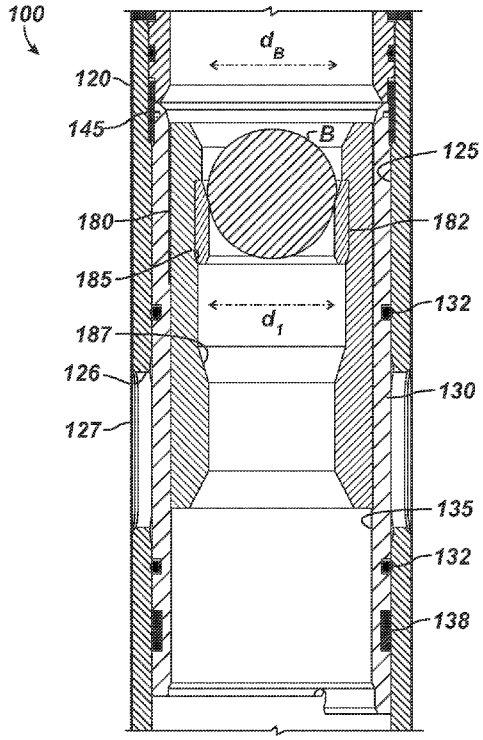


FIG. 13A

(57) Abstract: A sliding sleeve opens with a deployed ball, the sleeve comprising: a housing (120) defining a first bore and defining a flow port (127) communicating the first bore outside the housing; an inner sleeve (130) defining a second bore and being movable axially inside the first bore from a closed position to an opened position relative to the flow port, the second bore having a transition shoulder (185) and an engagement shoulder (187) disposed therein; and a compressible seat (182) disposed in a first axial position in the second bore of the inner sleeve, the compressible seat in the first axial position having an expanded state and engaging the deployed plug (B), the compressible seat moving the inner sleeve axially open in response to fluid pressure applied against the engaged plug, the compressible seat shifting from the first axial position past the transition shoulder to a second axial position and contracting from the expanded state to a contracted state in response to the applied fluid pressure, the compressible seat transitioned to the contracted state compressing against the engaged plug.

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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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ADD.

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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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.
Y	"FracPoint EX-C Frac sleeve system", , 4 October 2011 (2011-10-04), pages 1-1, XP055145225, Retrieved from the Internet: URL:http://assets.cmp.bh.mxmcloud.com/system/a1e5202b0c4beb6e300b590ef805cbfa_33834-fracpointex-c_ovrw_hires.pdf [retrieved on 2014-10-08] the whole document	1-18
Y	US 2009/044948 A1 (AVANT MARCUS A [US] ET AL) 19 February 2009 (2009-02-19) figures 6,7	1-18
A	US 2012/261115 A1 (XU YING QING [US]) 18 October 2012 (2012-10-18) abstract; figures 1,2	1-18

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Dantinne, Patrick

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009044948 A1	19-02-2009	US 2009044948 A1	19-02-2009
		WO 2009023612 A2	19-02-2009
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		WO 2012141842 A2	18-10-2012