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(71) Applicant: **Weatherford Technology Holdings, LLC**
Houston, TX 77056 (US)

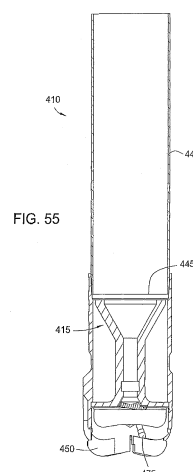
(72) Inventors:
• **Giroux, Richard L.**
Cypress, TX 77429 (US)
• **Galloway, Gregory G.**
Conroe, TX 77304 (US)
• **Le, Tuong Thanh**
Katy, TX 77450 (US)
• **Jackson, Raymond H.**
Spring, TX 77379 (US)

- **Nazzal, Gregory R.**
Kingwood, TX 77345 (US)
- **Swarr, James C.**
The Woodlands, TX 77382 (US)
- **Brunnert, David J.**
Cypress, TX 77429 (US)
- **Beasley, William M.**
31952, AlKhobar-Dammam Highway (SA)
- **Lirette, Brent J.**
Cypress, TX 77429 (US)
- **Odell, Albert C.**
Houston, TX 77041 (US)
- **Terry, Jim**
Houston, TX 77041 (US)
- **McKay, David**
Houston, TX 77041 (US)
- **Alkhatib, Samir**
Houston, TX 77041 (US)
- **Wardley, Mike**
Aberdeenshire, AB30 1EQ (GB)

(74) Representative: **Frontoni, Stefano**
Buzzi, Notaro & Antonielli d'Oulx
Via Maria Vittoria, 18
10123 Torino (IT)

(54) **Apparatus and methods for drilling a wellbore using casing**

(57) Apparatus and methods for drilling with casing. In an embodiment, methods and apparatus for deflecting casing using a diverter apparatus are disclosed. In another embodiment, the apparatus comprises a motor operating system disposed in a motor system housing, a shaft operatively connected to the motor operating system, the shaft having a passageway, and a divert assembly disposed to direct fluid flow selectively to the motor operating system and the passageway in the shaft. In another aspect, methods and apparatus for directionally drilling a casing into the formation are disclosed. Methods and apparatus for measuring the trajectory of a wellbore while directionally drilling a casing into the formation are also described.





EUROPEAN SEARCH REPORT

Application Number
EP 10 18 1194

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	* column 1, line 64 - column 2, line 43; figures 1,2 *	7-15	E21B7/18 E21B7/08 E21B33/14 E21B21/10 E21B41/00 E21B47/01
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			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 2 November 2017	Examiner Dantinne, Patrick
CATEGORY OF CITED DOCUMENTS 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 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			

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

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5 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
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