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(71) Applicant (for all designated States except US): **WELL-
BORE ENERGY SOLUTIONS, LLC** [US/US]; 6127
Highway 90 E, Brossard, LA 70518 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KNOBLOCH, Ben-
ton** [US/US]; 201 Sharpsburg Drive, Lafayette, LA 70508
(US). **ROY, Todd** [US/US]; 105 Countryview Drive,
Youngsville, Louisiana 70592 (US). **TILLEY, David, J.**
[US/US]; 2710 Irish Bend Road, Franklin, LA 70538
(US).

(74) Agent: **BOOTH, John, F.**; Booth Albanesi Schroeder
LLC, 1601 Elm Street, Ste. 1950, Dallas, TX 75201 (US).

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[Continued on next page]

(54) Title: REPEATABLE, COMPRESSION SET DOWNHOLE BYPASS VALVE

(57) Abstract: A bypass valve for use in tubing string which can be repeatedly opened and closed to selectively provide bypass fluid flow between the interior of the tubing string and the annulus to assist in flowing debris. The valve uses hardened valve elements which can be opened and closed while flowing fluids under pressure through the tubing string. The valve is actuated by placing the tubing string in a sufficient weight down condition to operate the valve. A trigger is provided to prevent unintended actuation of the bypass valve during use.

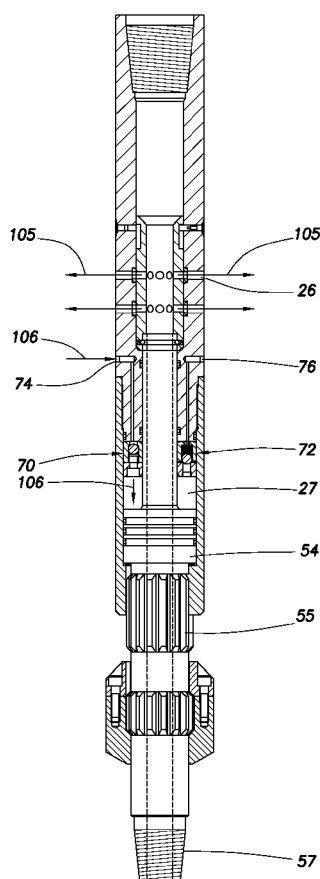


FIG. 3



KR, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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

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A. CLASSIFICATION OF SUBJECT MATTER
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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 practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 4 315 542 A (DOCKINS JR ROY R) 16 February 1982 (1982-02-16) column 2, line 55 - column 3, line 37; figures 1-4	1-18
X	WO 03/089755 A1 (SPECIALISED PETROLEUM SERV LTD [GB]; CARMICHAEL MARK [GB]) 30 October 2003 (2003-10-30) page 9, line 21 - page 10, line 22 page 12, line 1 - line 12; figure 1	19,20
X	WO 2008/139132 A1 (HALLIBURTON ENERGY SERV INC [US]; CURTIS PHILIP ANTHONY [GB]; EAST LOY) 20 November 2008 (2008-11-20) paragraph [0081] - paragraph [0083]; figure 7	1
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☒ 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/
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Strømmen, Henrik

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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