



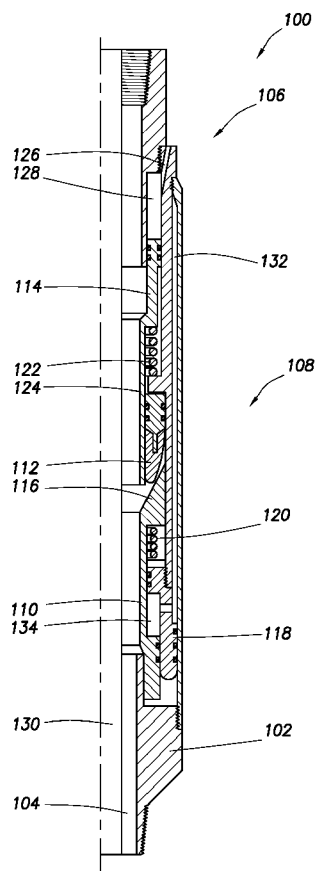
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- (71) Applicant (for all designated States except US): **HAL-LIBURTON ENERGY SERVICES, INC.** [US/US]; P.O. Box 819052, Dallas, Texas 75381-9052 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **GIUSTI, JR., Frank** [US/US]; 9213 Massey Rd., Pilot Point, Texas 76258 (US).
- (74) Agents: **CONLEY ROSE, P.C.** et al.; 5601 Granite Parkway, Suite 750, Plano, Texas 75024 (US).
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[Continued on next page]

(54) Title: SAFETY VALVE SYSTEM FOR CABLE DEPLOYED ELECTRIC SUBMERSIBLE PUMP

(57) Abstract: A safety valve for downhole use in a well comprises a valve body having a longitudinal bore for fluid flow; a bore closure assembly positioned to seal about a longitudinal cable within the bore; and a control assembly positioned and configured to actuate in response to a change in a control signal condition.

FIG.2





HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, 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, 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.

- (84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, 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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/039681**A. CLASSIFICATION OF SUBJECT MATTER*****E21B 34/08(2006.01)i, E21B 43/20(2006.01)i, E21B 34/12(2006.01)i***

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 34/08; E21B 43/20; E21B 34/12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: wellbore, safety valve, cable, seal, control

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2009-0183883 A1 (FONTENOT JR., HUWARD PAUL et al.) 23 July 2009 See paragraphs 27 - 29 and figures 2 - 4	1-21
Y	US 4049052 A (ARENDET, HENRY P.) 20 September 1977 See columns 3, 4, and figure 2	1-21
A	US 6375155 B1 (JANSSENS, HENRI BERTHA KAREL) 23 April 2002 See description and figures 1 - 4	1-21
A	US 5829464 A (AALTO, ARVO et al.) 03 November 1998 See description and figures 1 - 3	1-21

☐ 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

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"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

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Date of the actual completion of the international search

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Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

Choi Soo Jung

Telephone No. 82-42-481-8548



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
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