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(54) Title: FLOW CONTROL SCREEN ASSEMBLY HAVING REMOTELY DISABLED REVERSE FLOW CONTROL CAPABILITY

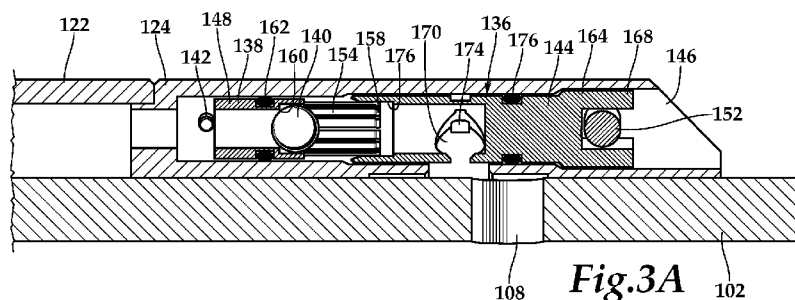


Fig.3A

(57) Abstract: A flow control screen having a fluid flow path between the interior of a base pipe and a filter medium. A valve assembly, including a piston body, a valve plug and a ball retainer having an opening, is disposed within the fluid flow path. The piston body has an internal seat and a collet assembly that is radially outwardly constrained by the ball retainer in a first operating position to retain the valve plug therein and radially outwardly unconstrained by the ball retainer in a second operating position. Reverse flow is initially prevented as internal differential pressure seats the valve plug on the internal seat and causes the piston body to shift to the second operating position upon reaching a predetermined threshold. Thereafter, external differential pressure causes the valve plug to be expelled from the valve assembly through the opening of the ball retainer, thereby no longer preventing reverse flow.

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A. CLASSIFICATION OF SUBJECT MATTER*E21B 43/08(2006.01)i, E21B 43/10(2006.01)i, E21B 34/16(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 43/08; E21B 43/12; E03B 3/18; E21B 34/06; E21B 34/00; E21B 34/08

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: screen, filter, flow control, ball

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009-0084556 A1 (RICHARDS WILLIAM MARK et al.) 02 April 2009 See abstract, paragraphs 76,77 and figures 12A,12B	1-20
A	US 2009-0151925 A1 (RICHARDS WILLIAM M. et al.) 18 June 2009 See abstract, paragraphs 26,30 and figure 2	1-20
A	US 2009-0078428 A1 (ALI MOHAMMAD ATHAR) 26 March 2009 See abstract, paragraph 19 and figure 1	1-20
A	WO 02-075110 A1 (RESLINK AS) 26 September 2002 See abstract, paragraphs 31,32 and figure 4	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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"&" document member of the same patent family

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