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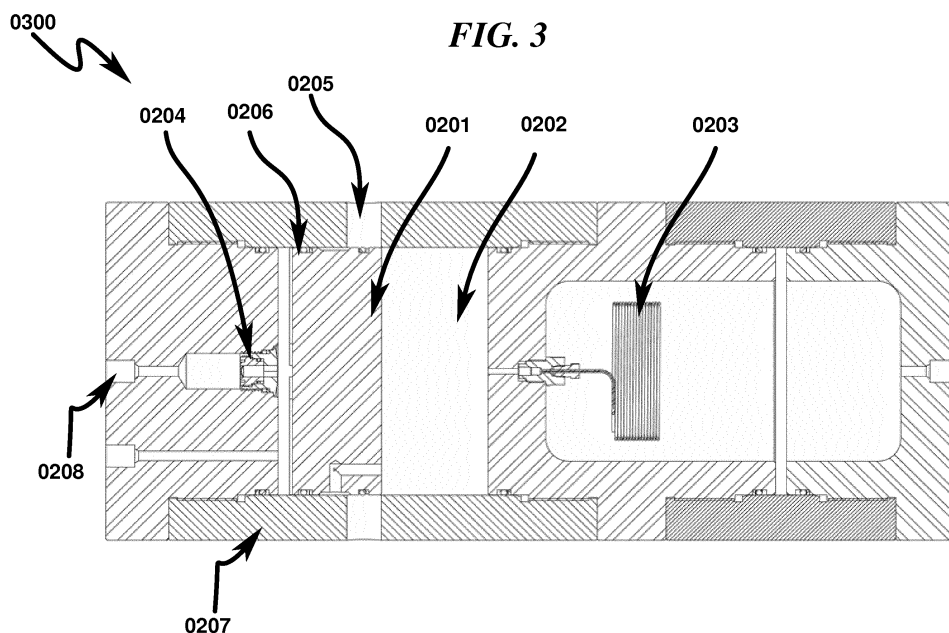
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(54) **HYDRAULIC FLOW RESTRICTION TUBE TIME DELAY SYSTEM AND METHOD**

(57) A hydraulic time delay system and method in a wellbore tool is disclosed. The system/method includes an actuation mechanism which allows pressure to act on a functional piston (0201) in the wellbore tool. The movement of the piston is restrained by a partially or filled reservoir (0202) which is allowed to exhaust through a flow restriction element (0203). The restriction element comprises standard metal tubing with a known inner di-

ameter and is cut to an exact length as predicted by fluid dynamic modeling. A time delay and rate of piston movement desired for the downhole tool, between a trigger event such as pressure and a functional event, can be tuned with parameters that include the length and diameter of the tubing, reservoir fluid viscosity, porous material with permeability in the tube, and number of tubes in parallel.





EUROPEAN SEARCH REPORT

Application Number
EP 16 16 4638

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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	* paragraphs [0003], [0028], [0032] - [0036]; figures 1-3 *	2-4,8, 13-15	E21B34/10
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			TECHNICAL FIELDS SEARCHED (IPC)
			E21B
			F15B
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		26 September 2016	Jucker, Chava
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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