

Title (en)  
ANNULUS PRESSURE RESPONSIVE DOWNHOLE TOOL

Publication  
**EP 0136146 A3 19880120 (EN)**

Application  
**EP 84306365 A 19840918**

Priority  
• US 53370183 A 19830919  
• US 53383483 A 19830919  
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Abstract (en)  
[origin: EP0136146A2] An annulus pressure responsive downhole tool includes a housing (54) having a power piston (140) slidably disposed therein. First (160) and second (166) pressure conducting passages communicate a well annulus (142) with first (142) and second (144) sides of the power piston. A retarding device (244) is disposed in the second pressure conducting passage for delaying communication of a sufficient portion of an increase in well annulus pressure to the second side of the power piston for a sufficient time to allow a pressure differential across the power piston to move the power piston from a first position to a second position relative to the housing. A pressure relief means (272) is communicated with the second pressure conducting passage between the power piston and the retarding device for relieving from the second pressure conducting passage a volume of fluid sufficient to permit the power piston to travel to its second position.

IPC 1-7  
**E21B 34/10**; **E21B 49/08**

IPC 8 full level  
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CPC (source: EP)  
**E21B 23/006** (2013.01); **E21B 34/108** (2013.01); **E21B 49/001** (2013.01); **E21B 2200/04** (2020.05)

Citation (search report)  
• [AD] US 4113012 A 19780912 - EVANS ROBERT T, et al  
• [A] US 3858649 A 19750107 - WRAY GARY Q, et al  
• [A] US 4109725 A 19780829 - WILLIAMSON JIM R, et al

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EP0518371A3; CN110863796A; CN114961643A; GB2449961A; US7926574B2; GB2449961B; WO03004828A1; US7766086B2

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