

Title (en)
DOWNHOLE TOOL

Publication
EP 0237662 B1 19900523 (EN)

Application
EP 86301966 A 19860318

Priority
EP 86301966 A 19860318

Abstract (en)
[origin: EP0237662A1] A downhole tool apparatus has a housing (32) having an operating element (34), e.g. a valve, disposed therein. An actuating piston (46) is disposed in the housing and is operably associated with the operating element so that the operating element is operated in response to movement of the actuating piston relative to the housing. A packer (48) is disposed about the housing for sealing between the housing and a well bore and for thereby defining an upper end of a sealed well annulus zone external of the housing. A compression passage (88) is disposed through the housing and communicates a low pressure side (90) of the actuating piston with the sealed well annulus zone exterior of the housing. The tool is used in a string including a lower packer longitudinally spaced from the upper packer and defining a lower end of the sealed well annulus zone. The upper and lower packers are set to define the sealed well annulus zone and to define a trapped reference pressure therein equivalent to the hydrostatic pressure of well annulus fluid. The sealed well annulus zone also provides a trapped volume of well fluid which acts as a compressible fluid spring to oppose the movement of the actuating piston. The actuating piston operates in response to increased well annulus pressure above the upper packer.

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IPC 8 full level
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CPC (source: EP)
E21B 33/124 (2013.01); **E21B 34/108** (2013.01); **E21B 49/001** (2013.01)

Cited by
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