

Title (en)  
VALVE CONTROL APPARATUS

Title (de)  
VENTILKONTROLLGERÄT

Title (fr)  
APPAREIL DE COMMANDE DE SOUPAPES

Publication  
**EP 0550569 B1 19970820 (EN)**

Application  
**EP 91917222 A 19910930**

Priority  
• GB 9101679 W 19910930  
• GB 9021488 A 19901003

Abstract (en)  
[origin: CA2093331A1] 2093331 9206270 PCTABS00011 The present invention provides a novel valve arrangement that enables the opening and closing of the test string circulation valve, and - when the valve is closed - the opening and closing of the tubing isolating valve, as many times as desired. To attain this end a number of arrangement are employed: 1) the use of a J-slot indexer to control the operation of a tool, the slot being in the form of two closed loop tracks (one laying within the other, with a common part), the two tracks controlling two different tool mode operations; 2) the operation of a multimode tool by a succession of annulus pressure pulses, wherein an initial operation is effected by pressure changes of a first pulse, and the operation following the subsequent pressure change is effected slowly so that, if a second pulse occurs within a given time (from the preceding pulse), the mode of the tool is altered and a third pulse thereafter causes a different operation to be initiated; 3) the use of two separate J-slot indexers, each in the form of a closed loop track, to control tool operation, one J-slot indexer controlling the movement of a first operating member connected to and driving a second operating member the movement of which is controlled by the other J-slot indexer.  
[origin: CA2093331A1] The present invention provides a novel valve arrangement that enables the opening and closing of the test string circulation valve, and - when the valve is closed - the opening and closing of the tubing isolating valve, as many times as desired. To attain this end a number of arrangement are employed: 1) the use of a 3-slot indexer to control the operation of a tool, the slot being in the form of two closed loop tracks (one laying within the other, with a common part), the two tracks controlling two different tool mode operations; 2) the operation of a multimode tool by a succession of annulus pressure pulses, wherein an initial operation is effected by pressure changes of a first pulse, and the operation following the subsequent pressure change is effected slowly so that, if a second pulse occurs within a given time (from the preceding pulse), the mode of the tool is altered and a third pulse thereof causes a different operation to be initiated; 3) the use of two separate J-slot indexers, each in the form of a closed loop track, to control tool operation, one J-slot indexer controlling the movement of a first operating member connected to and driving a second operating member the movement of which is controlled by the other J-slot indexer.

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