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(54) Title: MODULAR HYDRAULIC OPERATOR FOR A SUBTERRANEAN TOOL

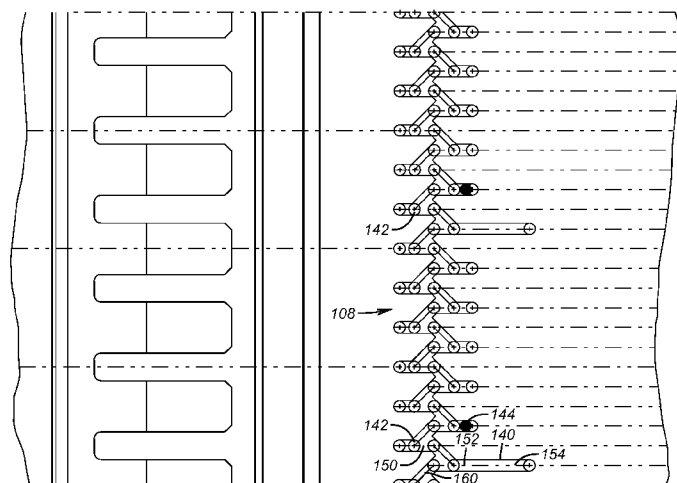


FIG. 3

(57) Abstract: A modular pressure operated actuator can be coupled with a downhole tool to selectively operate it at least once. In the preferred embodiment the module can be mounted adjacent an isolation valve and after a fixed number of on and off pressure cycles allow a spring to push an actuator to operate the valve to an open position. The actuator, in another embodiment, can be reset with a tool run into the module to move the actuator back against a power spring and hold that spring force until the pressure cycling begins again. The preferred application is for a formation isolation ball valve but other valves, such as sliding sleeves, or other types of downhole tools can be actuated with the module that permits a retrofit of a hydraulic operation to a heretofore purely mechanically actuated tool.



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