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(54) Title: SMART DOWNHOLE CONTROL

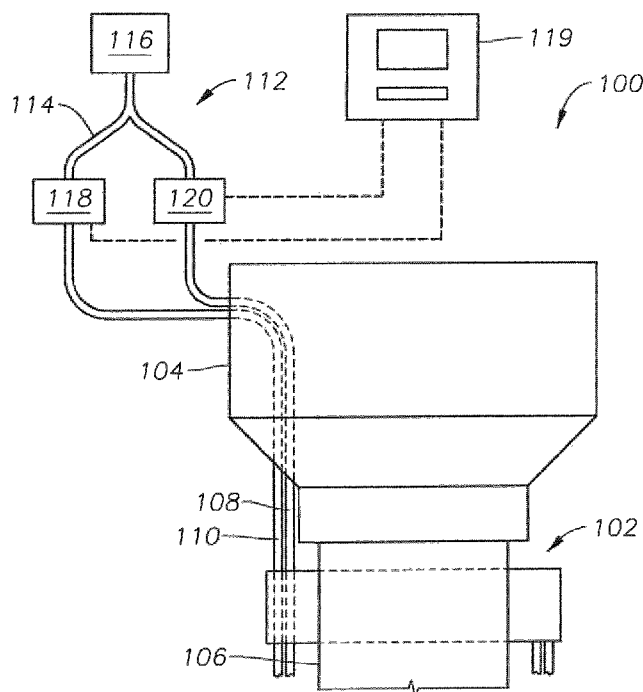


Fig. 1

(57) Abstract: A downhole control system 100 can include a pair of drive lines 108, 110 passing through a wellbore member such as a tubing hanger 108, and a plurality of hydraulic switches 122, each in communication with the drive lines 108, 110. Each hydraulic switch 122 can have a unique pressure band, wherein the switch 122 only responds when the pressure in the drive lines 108, 110 is within the unique pressure band. Once the pressure in the drive lines 108, 110 is within the pressure band, the switch 122 can open or close in response to a pressure differential in the drive lines.

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