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(54) Title: WELLHEAD DRIVE BRAKE SYSTEM

(57) Abstract

A braking mechanism, for controlling the release of energy in a rod string (34) for a down-well rotary pump (33), incorporates a rotary member (16) positioned in the energy loop from a prime mover to the top end of the rod string, requiring that the rotary member rotate at a consistent speed ratio and direction with respect to the top end of the rod string. The rotary member drives a fluid pump through a slip clutch so that when the top end of the string rotates in the normal direction, the clutch slips and does not run the fluid pump. However when the top end of the string seeks to rotate in the opposite direction, for example on shut-down or power failure, the fluid pump is operated to pump fluid from a reservoir (20) and back to the reservoir in a closed loop which includes a mechanism for restricting fluid flow.

