

Title (en)
Low power miniature hydraulic actuator

Title (de)
Sparsames hydraulisches Miniaturbetätigungsglied

Title (fr)
Actionneur hydraulique miniature à faible puissance

Publication
EP 1930540 A1 20080611 (EN)

Application
EP 07122479 A 20001031

Priority
EP 00978303 A 20001031

Abstract (en)
Electrohydraulic actuators and associated methods are utilized to control the operation of downhole well tool assemblies, representatively flow control devices. In a described embodiment thereof, each actuator (36) is positioned downhole and comprises a self-contained, closed circuit hydraulic system including an electrically operable double action primary pump (58) drivingly coupled to an associated well tool assembly (36) via a first hydraulic circuit, and an electrically operable switching pump (60) coupled to the first hydraulic circuit via a second hydraulic circuit interposed therein and operative to selectively alter the control flow of hydraulic fluid to the well tool assembly in a manner reversing its operation. To provide for selective, more rapid control of the well tool assembly, a chargeable accumulator (108) is connected to the hydraulic circuitry and is selectively and drivably communicatable with the well tool assembly.

IPC 8 full level
E21B 41/00 (2006.01); **E21B 43/12** (2006.01)

CPC (source: EP US)
E21B 23/0423 (2020.05 - EP US); **E21B 43/12** (2013.01 - EP)

Citation (applicant)

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Citation (search report)

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DE FR GB NL

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