

ABSTRACT

SUBSEA CHOKE CONTROL SYSTEM

A choke actuator having an integrated choke control system enabling fast closure and opening of the choke. The choke control system includes integral electronics to receive signals from a surface or subsea control module and control directional control valves to regulate the flow of hydraulic fluid from a local hydraulic supply to the choke actuator. Response times for choke actuation are greatly reduced by locating the electronic control system and directional control valves in an integrated package with the choke actuator and providing a local hydraulic supply. Additional embodiments may also include other electronic sensing and instrumentation enabling the choke control system to monitor and adjust the choke to maintain selected flow characteristics or in accordance with a predetermined production scheme. Any or all of the components of the choke, the choke control system, or the choke actuator may also be retrievable separately from the other components so as to allow maintenance and replacement.