BOP Control System Upgrades

Services and technologies that optimize the reliability and performance of your existing offshore equipment

APPLICATIONS
Subsea drilling operations

ADVANTAGES
- Backward compatibility
- Minimized downtime by enabling efficiently timed and managed maintenance
- API Spec 16D qualification
- Engineering focus on reliability and long service life
- R&D testing at state-of-the-art Harry Cameron Technology Center in Houston

A BOP is only as reliable as the split-second response of the control system behind it. Cameron continues to engineer new and better technologies that help operators increase efficiency and minimize downtime, especially in complex subsea drilling operations. Customers currently using the Mark III* subsea multiplex control pod can take advantage of these latest developments.

Harry Cameron Technology Center in Houston
- Dedicated R&D test area for BOP controls
- Capability of recreating stack conditions for pressure and flow
- Eleven 160-galUS, 7,500-psi accumulators
- High-speed, multichannel data acquisition

Mark III control pod.

High-speed, multichannel data acquisition.

Test accumulators that mimic BOP stack conditions.
Tungsten carbide valve and regulator repair kits
- Available as repair kits for Cameron drilling valves and regulators
- Exceptional wear resistance to abrasion, erosion, and galling
- Superb corrosion resistance against seawater and chemical solutions

¼-in regulator
- Seal plates with tapered geometry for improved stability through flow ranges
- Larger sensing-piston diameter for increased pressure sensitivity and reduced deadband
- Piston scraper seal that protects dynamic seal from debris
- Piston wear bands designed to act as secondary barrier against debris and deposition
- Spring housing that drains seawater in any orientation

¾- and 1½-in regulator seal plate
- New-geometry design that enables a more linear increase in effective flow orifice
- Improved stability across all flow rates while remaining sensitive to changes in pressure
- Excellent dynamic stability at ultralow flow rates
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1½-in subplate-mounted (SPM) valve
- Smaller-ID top seats and modified spring spacer that prevents downward deflection during water-hammer events
- Modified cage design with smaller vent hole (only for service where a quick vent is not needed to reduce water hammer from interflow)
- Optimized spring spacer that helps eliminate flexing of the top seal plate
- Wear band and wiper seal on shaft to extend O-ring life and prevent contamination

Pod pilot hoses and hose bulkhead
- Reinforced steel hose design that better resists kinks, collapse, and burst
- Bulkhead plate that enhances pilot hole routing
  - Single-length hose used for all pilot lines, simplifying maintenance

Pressure-balanced oil-filled cables
- Designed to intermate with your existing 12-, 22-, and 26-way connectors currently installed.
- Incorporates a strain relief feature to help improve reliability in the harshest environments.
- Radius added to contacts to increase strength.
- Integrates field proven collet clamp.

POD flowmeter transmitter upgrade
- Strengthened 6-bolt pressure-balanced, oil-filled (PBOF) mounting flange
- Updated hardware and software algorithms to improve gallon count readbacks particularly at low flow
- Backwards compatible flowmeter uses your existing flowmeter body to ensure fit and form, minimizing equipment NPT
- Upgrade used or inventory flowmeters

Additional updates
- Control pod coupler connection
- Pilot-operated check valve
- Accumulator charge valve
- ¾-in relief valve