

Drawworks Upgrade

Active Heave for AC Drawworks



Real-Time Control. More Stable Drilling. Better Performance.

Most offshore drawworks rely on passive compensation—reliable, but reactive.

Active Heave Drawworks (AHD) upgrades your system with real-time motion control, improving drilling stability and efficiency.

What's Changing

Passive CMC	Active Heave Drawworks
Reacts after vessel motion occurs	Measure motion in real time
Absorbs energy without controlling motion	Actively counteracts heave through the drawworks
Variable hook load and WOB	Improved hook load and WOB consistency

Result

A transition from reactive compensation to real-time control of the drilling system

Why AHD

Active Heave Control extends existing drawworks capabilities by introducing real-time control while leveraging proven infrastructure.

It provides a practical path to improved stability and more consistent drilling performance—without adding operational complexity.

Features and Benefits

- Real-time vessel motion measurement
- Closed-loop control via drawworks motors
- Operates within defined load and speed limits
- Stable hook load and drilling conditions
- Improved efficiency and uptime
- Reduced equipment fatigue and wear
- Better performance across varying sea states
- Extended offshore operating window

Performance Impact

- More consistent weight on bit (WOB)
- Increased rate of penetration (ROP)
- Reduced dynamic loading
- Predictable system response

Upgrade Advantage

- Designed for existing AC drawworks systems
- No full system replacement required
- Can be deployed as a standalone upgrade
- Enables immediate performance improvement
- Leverages existing installed base



Technical Approach

Active Heave Control uses motion data to drive a closed-loop control system that adjusts drawworks response. As operating limits are approached, the system dynamically manages output to maintain stable performance without abrupt transitions.

System Capability

The AHD upgrade enhances existing AC drawworks systems without requiring a full system replacement.

