TD-250-AC-1M
Top drive

APPLICATIONS
Land drilling operations

BENEFITS
- Improved operational certainty and efficiency with best-in-class performance and reliability
- Enhanced range of applications through modular design and ruggedized drilling capabilities
- High clamping force that reduces risk of bad grip when breaking out

FEATURES
- High-capacity thrust bearing
- Helical-cut gear teeth (carburized and grinded) that increase service life and reduce noise level and maintenance
- Forged gearbox lubrication for optimal performance of gears and bearings under all environmental conditions
- Onboard power-regulated hydraulic power unit (HPU)
- Weight-compensating system cylinders with built-in analog stroke sensor
- Hammerless-style washpipe that enables washpipe replacement within 5 min
- Onboard remote I/O that minimizes number of interface cables between variable frequency drive (VFD) housing and top drive

The TD-250-AC-1M provides best-in-class performance and proven reliability combined with simple maintenance and superior uptime.

Flexible operation
The single-motor top drive accommodates customer demands for an efficient and rigid top drive system for all land drilling operations.

Reliable, long-life service
The engineering of the top drive ensures low maintenance and long equipment life using industry-proven components and high-fatigue-capacity materials.

Simplified, safer operation
The remote-operated control system uses a customized PLC to ensure smooth, natural, and comfortable operation. The TD-250-AC-1M top drive is designed for portable installation on land rigs.

The straightforward design of the TD-250-AC-1M enables dependable performance and maximized uptime.

Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Hoisting capacity, tonUS [tonUK]</td>
<td>250 [226]</td>
</tr>
<tr>
<td>Maximum continuous torque, ft.lbf [N.m]</td>
<td>32,450 [44,000]</td>
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<tr>
<td>Maximum speed, rpm</td>
<td>230</td>
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<tr>
<td>Maximum makeup-breakout torque, ft.lbf [N.m]</td>
<td>45,700 [62,000]</td>
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<tr>
<td>Backup tong grab size, in [mm]</td>
<td>4 [102]</td>
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<tr>
<td>Power rating, hp [kW]</td>
<td>570 [425]</td>
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<tr>
<td>Water course pressure rating, psi [MPa]</td>
<td>7,500 [51.7]</td>
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<tr>
<td>Inside BOP (IBOP) pressure rating, psi [MPa]</td>
<td>15,000 [103.42]</td>
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<td>Design code and standard</td>
<td>API Specification 8C (Product Specification Level 1)</td>
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<tr>
<td>Area classification</td>
<td>ATEX Zone 1 and 2, IIB, T3</td>
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**TD-250-AC-1M**

**Torque and rpm performance curve of the top drive represents its high-quality performance in a range of operation parameters**

**Scope of Supply**
- Top drive assembly, complete with gearbox, S-pipe, AC traction motor with Ingress Protection Standard 44 (IP44) enclosure, blower, drillstem subs, suspension system, weight-compensating system, onboard HPU, on-board remote I/O, rotatable pipe handler with bidirectional link tilt system, remote IBOP actuator, and backup tong
- Power VFD housing
- Power and signal service loops; mast interface loops
- Drilling control panel
- Torque tube and torque carriage
- Handling (transport) cradle
- Auxiliary tools
- Documentation

**Options**
- 800-hp [595-W] power solution
- Mud and cement hose
- Wireline guide (bicycle)
- Elevator links
- Power incoming cable kit (from generator supply)
- Dolly for dual rail system
- Traveling block
- Drilling hook
- Elevator link hook
- Saver sub that accommodates drillpipe from 2¾ to 6½ in [60 to 168 mm]