The TDS-11SAE is an upgrade package that consists of two new 600-horsepower induction motors and gear box internals that are retrofitted to a customer-owned TDS-11SA top drive. Increasing the horsepower from 800 to 1,200 allows drilling contractors to drill faster and deeper wells while maintaining a similar rig footprint.

The TDS-11SAE upgrade provides drilling contractors with a cost-effective, OEM-engineered solution to upgrade a critical piece of drilling equipment. The upgrade can be performed at an NOV repair shop during standard CAT-IV or five-year overhaul services, minimizing downtime. Performing the upgrade at our certified NOV repair centers guarantees that you receive the design and engineering expertise of the OEM and the continued support of a global organization that understands the product better than anyone else.

Contact your local NOV representative or visit us online to learn how the TDS-11SAE upgrade can provide up to 45% more power and torque, allowing you to drill your most challenging wells.

Related Products: TDS-11 HD
TDS-11SAE | Enhanced upgrade package

Up to 45% more power and torque

Features and benefits

Two 600-horsepower induction motors
- Dramatic increase in horsepower yields significantly more torque
- Enables drilling of wells beyond the technical limits of the standard top drive

500-ton main thrust bearing
- Ensures hoisting capacity to handle heavy pipe
- API 8C hoisting and rotating; dynamic and static

Retrofittable to stand TDS-11SA top drives
- Minimizes downtime associated with equipment upgrade
- Delivers significantly more power in virtually the same footprint
- Reduces the cost of total ownership

<table>
<thead>
<tr>
<th>Drilling Motor Type</th>
<th>AC Induction Motors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horsepower Rating</td>
<td>2 x 600 HP</td>
</tr>
<tr>
<td>TDS Working Height</td>
<td>19'4&quot; (21'8&quot; with 120° Bail)</td>
</tr>
<tr>
<td>Weight</td>
<td>35,000 lbs. (15,875 kg)</td>
</tr>
</tbody>
</table>

Transmission

- Gear Ratio: 10.56:1
- Lube: Force-fed, filtered, air-cooled

Drilling Parameters

- Maximum Speed: 228 RPM
- Maximum Continuous Torque: 58,800 ft-lb (79,722 N-m)
- Maximum Breakout Torque: 75,000 ft-lb (101,686 N-m)
- Maximum Makeup Torque: 62,500 ft-lb (84,738 N-m)
- Static Lock Brake: 39,000 ft-lb (52,877 N-m)

Rating Capacities

- Hoisting and Rotating: 500 ton (453,592 kg)
- Water Course: 3 in (76.2 mm)
- Washpipe Packing: 1,500 psi (517 bar)

Pipe Handler

- PH-75
- Torque Capacity: 75,000 ft-lb (101,686 N-m)
- Connection OD: 4 in – 8½ in (101.6 mm – 215.9 mm)
- IBOP Pressure Rating: 15,000 psi (1,034 bar)
- Upper IBOP: 6% in API Reg. RH Box (remote operated)
- Lower IBOP: 6% in API Reg. RH Pin/Box (manual)
- Rotation/Orientation: 360°/Unlimited

Other

- Cooling System: Local Blower
- Hydraulic Power: Onboard
- Temperature Range: -40°C to +55°C (-40°F to +131°F)*
- Casing Running Tool Ready: Optional
- Elevator Links: 250, 350 and 500 ton API
- Footprint: 65'2" x 56'1" (1,996 mm x 1,716 mm)

Retrofittable to stand TDS-11SA top drives

- Minimizes downtime associated with equipment upgrade
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40°C is the standard operating temperature

**Drill pipe torque (ft-lb)**

0 10,000 20,000 30,000 40,000 50,000 60,000 70,000 80,000

Drill pipe torque (lb)

0 50 100 150 200 250

**TDS Speed (RPM)**

**TDS-11SAE 1200HP**

**TDS-11SA 800HP**

Note: 560V, +40°C Rating