Scientific Drilling’s Sci-Driver™ Near Bit Smart Motor is a positive displacement mud motor housing an electronic payload that provides azimuthal gamma ray, inclination, RPM and vibration measurements close to the bit, making it the ultimate geosteering solution.

**DELIVERING THE ULTIMATE VALUE**
- Standard PDM mud motor with electronic payload
- Innovative electronic payload, delivering high-accuracy azimuthal gamma ray and continuous inclination, RPM and vibration measurements 9 ft (2.74 m) from the bit
- Data transmitted to surface real-time via Wi-Sci™ Short Hop and SDI’s Falcon MWD

**TARGET APPLICATIONS**
- Geosteering
- Tight Trajectory Control
- Complex SAGD Applications
- Early Payzone Detection
- Kickoff Point Identification
- Casing and Coring Point Selection
- Early Monitoring of Motor Yield

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>General Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
</tr>
<tr>
<td>Max Tool O.D.</td>
</tr>
<tr>
<td>Recommended Hole Sizes</td>
</tr>
<tr>
<td>Max Bend Angle</td>
</tr>
<tr>
<td>Weight of Motor</td>
</tr>
<tr>
<td>Rotational Rate</td>
</tr>
</tbody>
</table>

**Bearing Section**
- Bit to Bend Length: 62 in (1.57 m)
- Bit Box Connection: 4 1/2 in API Reg. Box
- Max WOB: 50,000 lbs (22,241 DaN)
- LCM Capability: 40 lb nut plug

**Power Section**
- Lobe Configuration: 7/8
- Stages: 5.0
- Max Diff Pressure: 1,130 psi (7,760 kPa)
- Stall Diff Pressure: 1,690 psi (11,630 kPa)
- Torque at Max Diff Pressure: 10,460 ft-lbs (14,190 Nm)
- Stall Torque: 15,690 ft-lbs (21,280 Nm)
- Flow Range: 300-600 gal/min (1,140-2,270 L/min)
- Speed Range: 86-180 RPM
- Speed Ratio: 0.29 rev/gal (0.08 L)
- Torque Slope: 9.30 ft-lb/psi (1.83 Nm/kPa)

**Measurement Specifications**
- Bit to Sensor Distance: 10.17 ft (3.1m)
- Detector Type: NaI Scintillation Crystal
- Gamma Range: 0-1,000 AAPI
- Azimuthal Gamma Bins: 2
- Inclination Accuracy: ±0.15° all angles
- Telemetry Update Rate: 8 - 14 seconds

Specifications are subject to change without notice.

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Chart data is based on bending-moment limitations of the bent housing. The primary criteria used to establish these limit lines is the bending moment that results in the onset of shoulder separation at the bend. The Plot is representative of sustainable operation in a specific wellbore curvature (DLS). The chart only applies to slick motors and does not, in any way, attempt to predict build/drop tendencies of the BHA. DLS lines correspond to the wellbore curvature that the motor is currently in. If a particular bend assembly is in a curve that, according to the chart, prevents rotation then slowly rotate (30 RPM) until the motor has effectively drilled itself out of the curve. Prolonged rotation in a curve (>10 minutes) or sustained rotation rates above 30 RPM will accelerate fatigue in the motor and are considered out-of-spec operations. Configurations with stabilizers and special equipment need to be looked at on an individual basis.