

PRODUCT SPEC SHEET

SCI - DRIVER™ NEAR BIT SMART MOTOR [8" 7/8 4.0]

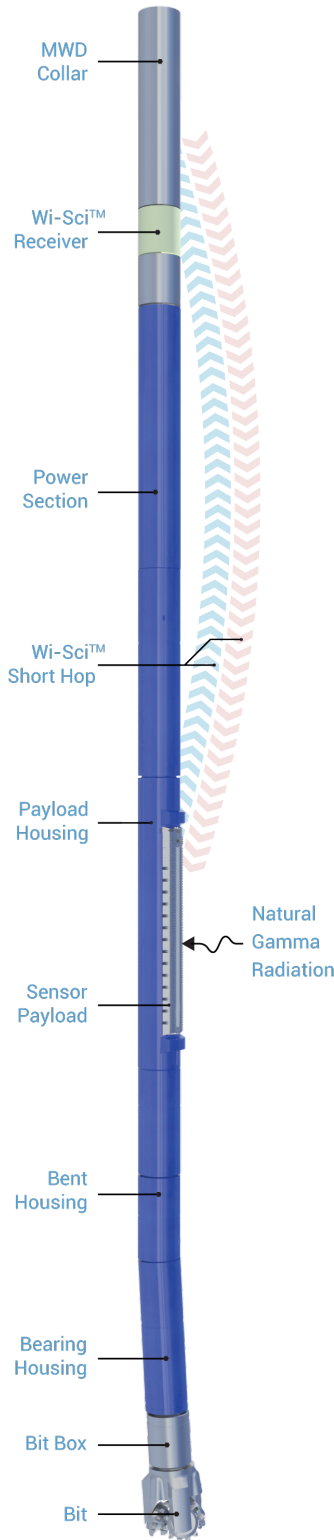
Scientific Drilling's Sci- Driver™ Near Bit Smart Motor is a positive displacement mud motor housing an electronic payload that provides azimuthal gamma ray, inclination, RPM and vibration measurements close to the bit, making it the ultimate geosteering solution.

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

GENERAL SPECIFICATIONS

Length	46.3 ft (14.1 m)
Max Tool O.D.	8.6 in (218.4 mm)
Recommended Hole Sizes	10 5/8- 12 1/4 in (270 - 311 mm)
Max Bend Angle	2°
Weight of Motor	5,000 lbs
Rotational Rate	Refer to charts on back

BEARING SECTION

Bit to Bend Length	61.2 in (1.5 m)
Bit Box Connection	6 5/8 in API Reg. Box
Max WOB	75,000 lbs (33,362 DaN)
LCM Capability	40 lb nut plug

POWER SECTION

Lobe Configuration	7/8
Stages	4.0
Max Diff Pressure	900 psi (6,205 kPa)
Stall Diff Pressure	1,350 psi (9,308 kPa)
Torque at Max Diff Pressure	14,930 ft-lbs (20,242 Nm)
Stall Torque	22,400 ft-lbs (30,370 Nm)
Flow Range	400-900 GPM (1,510-3,410 LPM)
Speed Range	66-150 RPM
Speed Ratio	0.16 rev/gal (0.04 rev/L)
Torque Slope	16.59 ft-lb/psi (3.26 Nm/kPa)

MEASUREMENT SPECIFICATIONS

Bit to Sensor Distance	12.7 ft (3.9m)
Detector Type	Nal Scintillation Crystal
Gamma Range	0-1,000 AAPi
Azimuthal Gamma Bins	2
Inclination Accuracy	±0.15° all angles
Telemetry Update Rate	8 - 14 seconds

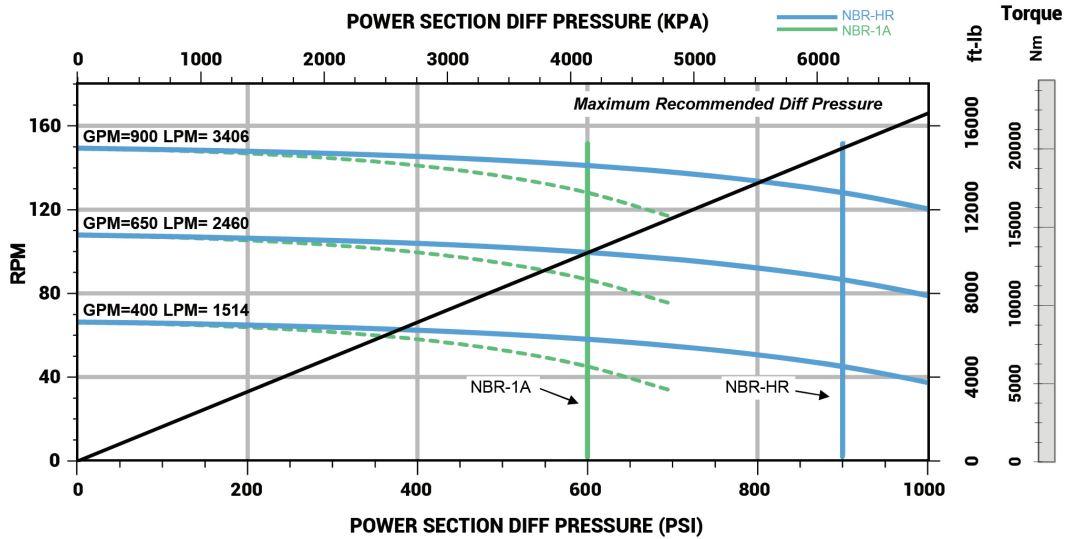
Specifications are subject to change without notice.

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SCI - DRIVER™ 8" 7/8 4.0 Power Curve



SCI - DRIVER™ 8" Estimated Rotation Limits in 10 5/8" Wellbore

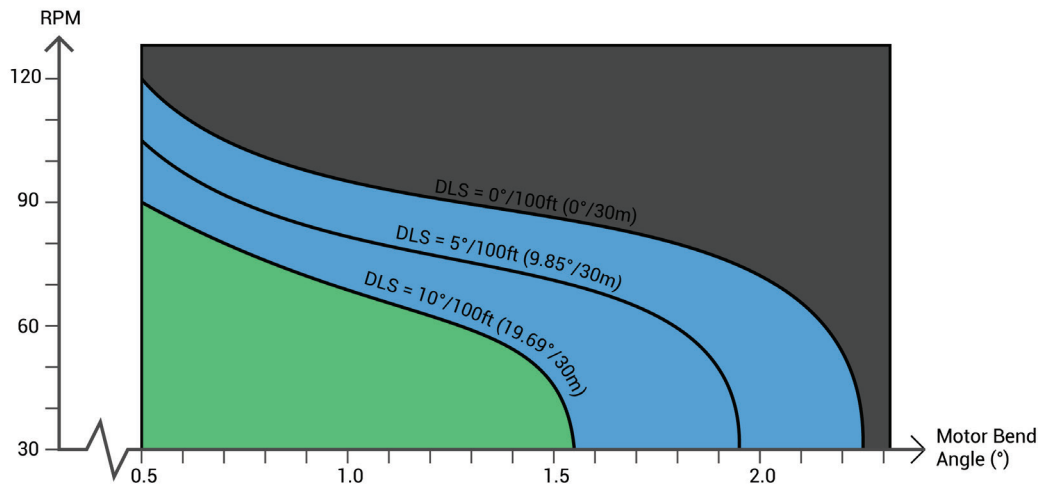


Chart data is based on bending-moment limitations of the bent housing. The primary criteria used to establish these limit lines is the bending moment that results in the onset of shoulder separation at the bend. The Plot is representative of sustainable operation in a specific wellbore curvature (DLS). 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.