

PRODUCT SPEC SHEET

SCI - DRIVER™ NEAR BIT SMART MOTOR [4.75" 7/8 3.8]

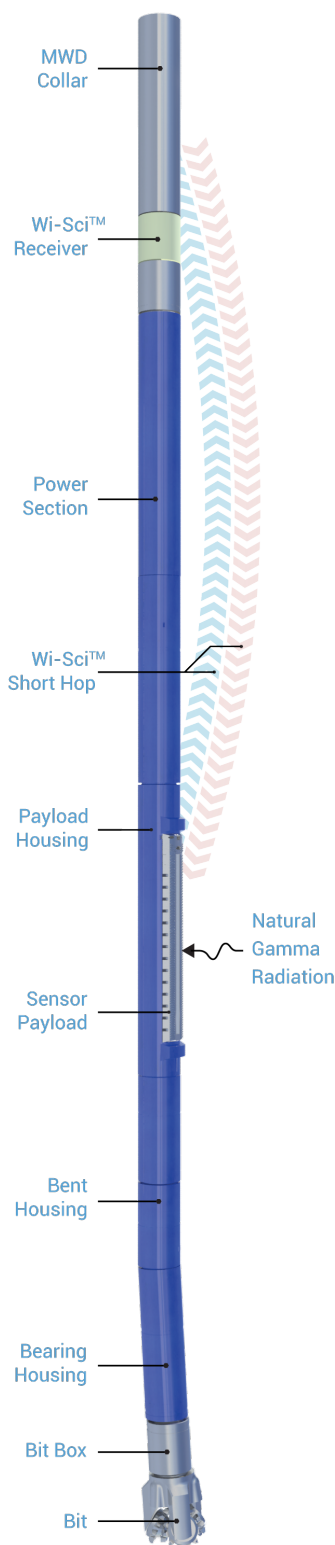
Scientific Drilling's Sci- Driver™ Near Bit Smart Motor is a positive displacement mud motor housing an electronic payload that provides azimuthal gamma ray, inclination, RPM and vibration measurements close to the bit, making it the ultimate geosteering solution.

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	36.92 ft (11.25 m)
Max Tool O.D.	5.4 in (137.2 mm)
Recommended Hole Sizes	6 - 6 1/4 in (152 - 159 mm)
Max Bend Angle	2°

BEARING SECTION

Bit to Bend Length	45.6 in (1.15 m)
Bit Box Connection	3 1/2 in API Reg. Box
Max WOB	20,000 lbs (8,896.4 DaN)
LCM Capability	40 lb nut plug

POWER SECTION

Lobe Configuration	7/8
Stages	3.8
Max Diff Pressure	860 psi (5,900 kPa)
Stall Diff Pressure	1,280 psi (8,840 kPa)
Torque at Max Diff Pressure	4,450 ft-lbs (6,030 Nm)
Stall Torque	6,670 ft-lbs (9,050 Nm)
Flow Range	150-250 gal/min (570-950 L/min)
Speed Range	78-140 RPM
Speed Ratio	0.52 rev/gal (0.14 rev/litre)
Torque Slope	5.20 ft-lb/psi (1.02 Nm/kPa)

MEASUREMENT SPECIFICATIONS

Bit to Sensor Distance	9 ft (2.7m)
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.

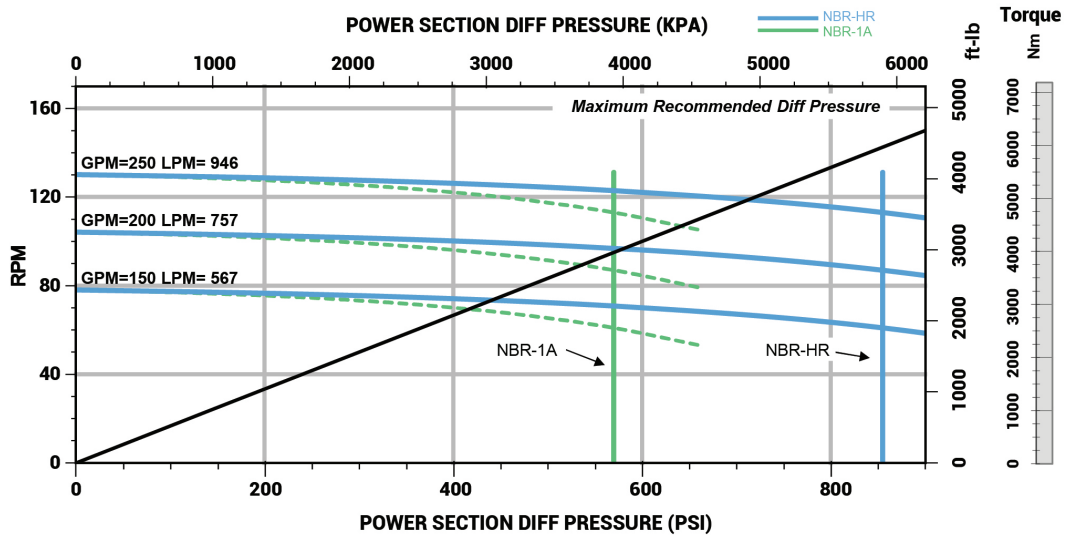
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SCI - DRIVER™ NEAR BIT SMART MOTOR [4.75" 7/8 3.8]

SCI - DRIVER™ 4.75" 7/8 3.8 Power Curve



SCI - DRIVER™ 4.75" Estimated Rotation Limits in 6" Wellbore

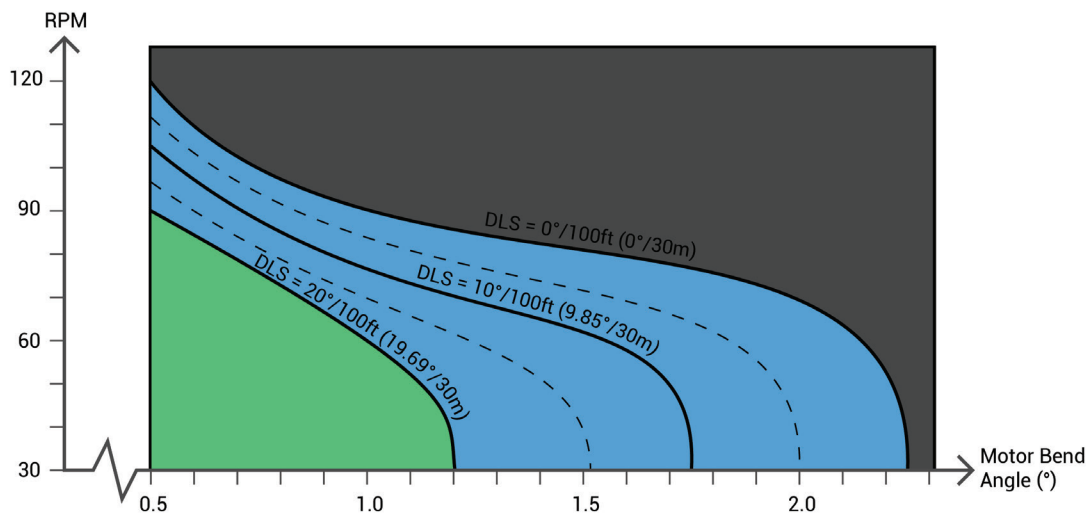


Chart data is based on bending-moment limitations of the bent housing. The primary criteria used to establish these limit lines is the bending moment that results in the onset of shoulder separation at the bend. The Plot is representative of sustainable operation in a specific wellbore curvature (DLS).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

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