

PRODUCT DATA SHEET

PDC BITS FOR HDD

MODEL: 6 3/4" S513

TERRA PDC (Polycrystalline Diamond Compact) matrix bits are engineered for operators who demand durability, reliability, and consistent performance in challenging drilling conditions. Designed for rotary drilling applications, TERRA bits provide exceptional stability, efficient cutting action, and dependable penetration rates across a wide range of formations.

TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATION
Bit Type	PDC
Bit Size	6 3/4"
Blade Count	5
Cutter Size / Count	13 mm & 16 mm
IADC Code	S513
Pin Connection	3 1/2" API
Circulation	Jetted Circulation Ports
Body Material	Steel Body
Weight	55 lbs

OPERATION SUGGESTIONS

Weight On Bit	2 – 3,000 lbs
Rotary Speed	60-120 r/min

RECOMMENDED FORMATIONS

- Ideal for drilling in the most challenging formations and high compressive strength conditions. Pilot Hole Drilling. Drilling Production and injection wells. Penetrating hard and abrasive rock.
- Operating parameters are provided as guidelines and should be adjusted according to formation characteristics and drilling conditions.
- The maximum recommended WOB and RPM values should not be applied simultaneously

ADVANCED SPECS

Nozzle Type	Threaded Jet Nozzles
Gauge Pad Length	3 inches
Cutter Technology	High-Impact Premium Grade
Body Protection	Active Tungsten Carbide Inserts

TERRA ROCK BIT



KEY PERFORMANCE FEATURES

- ✓ **Forced-Balanced Design:**
Minimizes vibration and lateral loading to increase cutter life and ensure a straighter hole.
- ✓ **Optimized Cutter Placement:**
Strategic 3D layout of the 13mm and 16mm cutters distributes workload evenly across each blade to prevent uneven wear and maximize ROP.
- ✓ **Enhanced Junk Slot Geometry:**
Deep, streamlined fluid channels quickly evacuate cuttings from the bit face to completely prevent "balling up" in sticky clay or shales.
- ✓ **Active Gauge Pad Protection:**
Embedded tungsten carbide buttons along the gauge pads maintain a true 6 3/4" hole diameter and protect the body during tough steering adjustments.
- ✓ **Premium Body Hardfacing:**
Specially engineered hardfacing applied across the blades provides maximum erosion resistance against highly abrasive sandstones and gravel.
- ✓ **Smooth, Stable Drilling:**
Experience significantly reduced vibration, steady torque, and rock-solid stability that minimizes tool damage and keeps your operation running smoothly.
- ✓ **5X Faster ROP:**
Drives higher rates of penetration, helping you complete jobs quicker and more efficiently.



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BUILT FOR POWER.
TRUSTED IN THE FIELD.



Terrarockbit.com

Technical data, field support, and custom bit design options.