

# MUD MOTORS

Built for HDD Performance

- High performance mud motor designed specifically for HDD
- Can be operated at a slower speed that is more compatible with tri-cone bits
- High torque to flow ratio means you get more drilling power with less fluid
- High quality internal parts results in more drilling time before regular maintenance is required

## ROCK-IT MUD MOTOR RENTALS

- Fixed, known rental price – no hidden fees! Know what your costs are up front
- Just two charges – monthly rental and a weekly wear charge
- Rent the tool for as little as one week
- Rental period starts from the time you receive the tool, not from when it is shipped
- Rental period ends from the time you ship the tool back, not from when we actually receive the tool



**INCREDIBLE RENTAL AND PURCHASE PRICES  
NO HIDDEN FEES AND NO SURPRISE CHARGES.**



### Rock-It Mud Motors

	Standard Sizes					
	3"	3-1/2"	3-3/4"	4-3/4"	5"	6-3/4"
	5/6 Lobe	5/6 Lobe	5/6 Lobe	5/6 Lobe	7/8 Lobe	7/8 Lobe
Torque Rating	250 ft-lbs	475 ft-lbs	1200 ft-lbs	1200 ft-lbs	2500 ft-lbs	5,000 ft-lbs
Rotational Speed	80-346 rpm	120-380 rpm	200-400 rpm	180-370 rpm	105-230 rpm	70-150 rpm
Length	9-1/2 ft	11-1/2 ft	12-1/2 ft	12-1/2 ft	13 ft	16 ft
Weight	175 lbs	290 lbs	450 lbs	650 lbs	675 lbs	2,400 lbs
Flow Requirements (@ 1000 psi)	20-60 gpm (@ 1000 psi)	30-100 gpm (@ 1000 psi)	100-170 gpm (@ 1000 psi)	100-170 gpm (@ 1000 psi)	140-300 gpm (@ 1000 psi)	200-500 gpm (@ 1000 psi)
Operating Range	350 psi	300 psi	350 psi	350 psi	600 psi	500 psi
Recommended Bit Size	3-7/8" to 4-1/2"	4-1/2" to 5-1/2"	5-1/4" to 6-1/4"	6" to 7-7/8"	6" to 7-7/8"	8-3/4 to 9-7/8"
Recommended Drill Rig	D24x40 D33x44 D40x44 JT200 JT320 Mach 1 JT3228	D36x50 D40x40 JT3020 Mach1 JT4020 JT4020 Mach1 DD4	D50x100 D55x100 DD6	D80x100 JT7020 Mach 1	D80x120 D100x120 JT8020 Mach 1 DD8 DD10 DD140B DD9014	Maxi-Rigs

Mud Motors available in more sizes and configurations than listed above. Call for more information.

**HOLE OPENERS NOW AVAILABLE!**  
Call for details



To place an order or find a dealer **800-833-1252**

Fax 24 hours a day: **805-614-9548**

[www.melfredborzall.com](http://www.melfredborzall.com)

## TRI-CONE ROCK BITS

Drilling solid rock isn't easy, and it isn't always the same. That's why Directional Depot gives you a choice of high-quality rock bits.

### SMITH\* HD SERIES HDD BITS

- Open bearing configuration for short bore applications
- Offered with mill tooth or carbide tooth configurations

#### Smith HD Series HDD Rock Bits

Diameter	Thread Size	Formation Type	Part #
3-7/8"	2-3/8" API-Reg	Soft to Medium	1538-HD-15
4-1/2"	2-7/8" API-Reg	Soft to Medium *	1545-HD-15
4-3/4"	2-7/8" API-Reg	Soft to Medium	1547-HD-15
5-1/2"	2-7/8" API-Reg	Soft to Medium	1555-HD-15
5-7/8"	3-1/2" API-Reg	Soft to Medium	1558-HD-15

\* Smith Bits is a registered trademark of Smith International, Inc., Houston, TX

### SMITH HDS+ SERIES HDD BITS

- Designed specifically for HDD applications in rock up to 30,000 psi
- Sealed friction bearing system
- Tungsten carbide inserts available in a variety of tooth profiles
- Maximum gage and leg protection for a longer bit life

#### Smith HDS+ Series HDD Rock Bits

Diameter	Thread Size	Formation Type	Part #
3-7/8"	2-3/8" API-Reg	Soft to Medium/Hard	1538-HDSP-55
4-3/4"	2-7/8" API-Reg	Soft to Medium/Hard	1547-HDSP-58
5-1/2"	2-7/8" API-Reg	Soft to Medium/Hard	1555-HDSP-55
6-1/2"	3-1/2" API-Reg	Soft to Medium/Hard	1565-HDSP-70
7-7/8"	4-1/2" API-Reg	Soft to Medium/Hard	1578-HDSP-95
8-3/4"	4-1/2" API-Reg	Soft to Medium/Hard	1587-HDSP-95

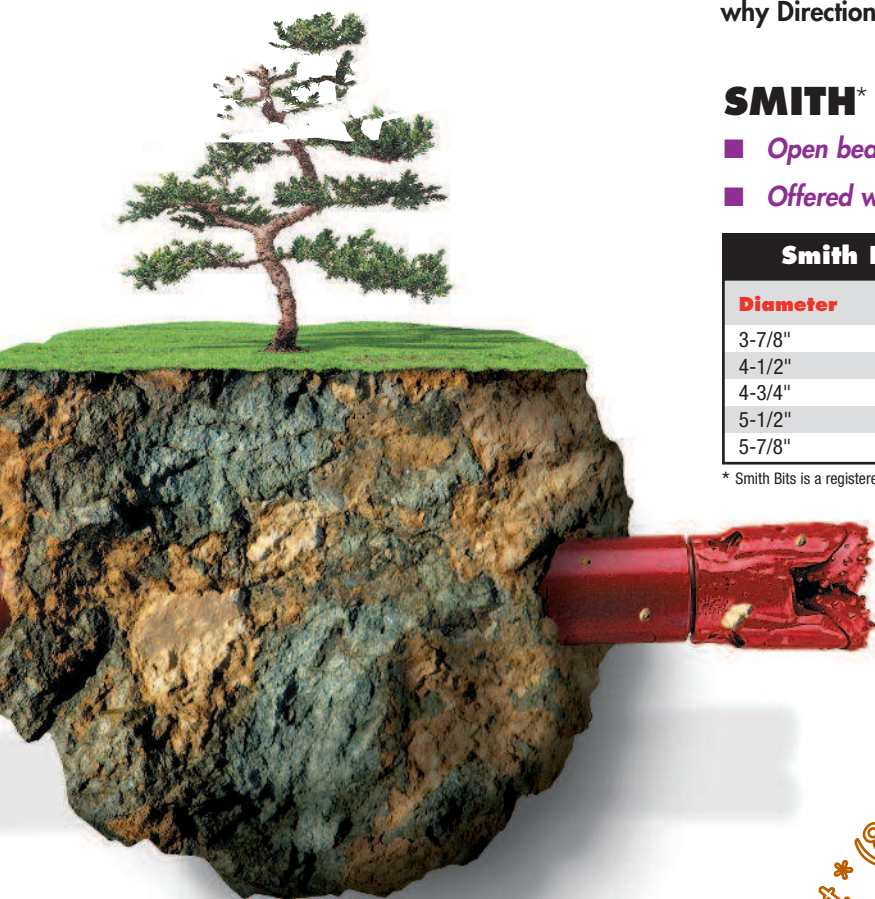
### ROCK-IT HDD ROCK BITS

- High quality rock bit but with a lower up-front cost
- Sealed bearings keep this bit running and running
- Tungsten carbide inserts available in a variety of tooth profiles



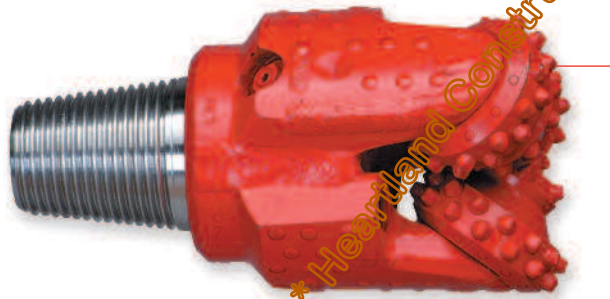
#### Rock-It HDD Rock Bits

Diameter	Thread Size	Formation Type	Part #
3-7/8"	2-3/8" API-Reg	Medium formations	1538-RI-30
4-3/4"	2-7/8" API-Reg	Medium formations	1547-RI-30
5-1/2"	2-7/8" API-Reg	Medium formations	1555-RI-61
5-7/8"	3-1/2" API-Reg	Medium formations	1558-RI-40
6-1/4"	3-1/2" API-Reg	Medium formations	1562-RI-40



- Every job is different so we offer a wide variety of rock bits
- Complete line of world renowned Smith bits – HD, HDS+ and HDX series
- Rock-It bits offer a good value to cost alternative

**1555-RI-61** Rock-It HDD Rock Bit



Ask about Rock-It bits for your Ditch Witch All Terrain rigs

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