

BD543 RC Hammer

Compatibility: RE543, MR116, AD638

Black Diamond Drilling offers a complete range of reverse circulation hammers along with fully integrated R.C. Bits and Shrouds that have been designed to provide a world-class sampling system. Precision engineering enables our R.C. Hammers to excel in maintaining an efficient and smooth flow of drill cuttings to the surface, ensuring cleaner, more accurate samples. This leads to more reliable data for exploration and better overall hole quality.



SPECIFICATIONS

Item	Diameter Ø	
	mm	inch
Hammer	116	4 9/16
Bit	121 – 133	4 3/4 - 5 1/4
Suits medium to hard ground conditions		

BD543 RC Hammer

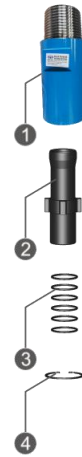


Black Diamond
Drilling Services Australia

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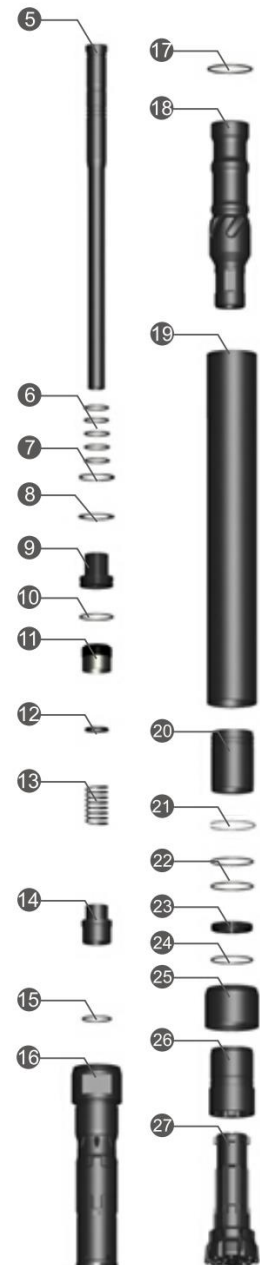
Top Sub Assembly

	Product Code	Description	Amt	Compatibility
A	Crossover Sub Assy PIN Metzke 4"(54mm) to Remet 4" PIN to BOX Crossover Sub Assy OD116mm RC-SUBA-PM4BR4-116/54			
1	BD543-TSUB-R4	Top Sub Remet 4"	1	33-542-R40
2	BD543/542-ASCREEN-R4	Adaptor Tube Remet 4"	4	20-540-R40
3	BD543/542-SK-ASCREENR4	O Ring (Adaptor Tube Remet 4")	1	38-542-000
4	BD543/542-CIRCLIP-ASCREENR4	Top Sub-Remet 3.5"	1	41-D1300-0800



Hammer Assembly

	Product Code	Description	Amt	Compatibility
5	BD543/542-STUBE-M4/54	Sample Tube	1	37-542-000
6	BD543/542-SK-STUBE	O Ring (Sample Tube)	5	38-542-000
7	BD543/542-CIRCLIP-4	Circlip B	1	41-D1300-0800
8	BD543/542/AIRSCREEN	Air Screen	1	21-542-000
9	BD543/542-DIST	Distributor	1	29-542-000
10	BD543/542-SK-DIST	O Ring (Distributor)	1	38-542-000
11	BD543/542-CVALVE	Check Valve/Plunger	1	25-542-000
12	BD543/542-SK-CVALVE	Y Ring (Check Valve)	1	38-542-000
13	BD543/542-SPRING	Spring	1	22-542-000
14	BD543/542-STUBE-M	Mount Sample Tube	1	-
15	BD543/542-SK-STUBEM	O Ring (Mount Sample Tube)	1	38-542-000
16	BD543-ICYL-M4/54	Inner Cylinder/Top Barrel	1	31-543-000
17	BD543/542-SK-ICYL	O Ring (Inner Cylinder)	1	38-542-000
18	BD543/542-PISTON	Piston	1	36-542-000
19	BD543-ECYL	External Cylinder	1	35-543-000
20	BD543/542-BUSH	Bearing Bush	1	26-542-000
21	BD543/542-PRING	Piston Retaining Ring	1	23-542-000
22	BD543/542-SK-BUSH	O Ring (Bearing Bush)	2	38-542-000
23	BD543/542-SRING	Bit Ring	1	27-542-000
24	BD543/542-SK-SRING	O Ring (Bit Ring)	1	38-542-000
25	BD543/542-SHROUD-127/125	Shroud	1	40-542-415
26	BD543/542-DSUB	Drive Sub	1	16-542-000
27	BD543/542-127DC	Drill Bit	1	62-542-500DC
28	BD543/542-SK	Seal Kit (Item2+6+10+12+15+17+22+24)	1	38-542-000





Bit Selection Table

Bit Product Code	Diameter		Compatibility
	Metric	Imperial	
BD543/542-124DC-TPD	124mm	4 7/8"	63-542-414DC
BD543/542-127DC-TPD	127mm	5"	63-542-500DC
BD543/542-130DC-TPD	130mm	5 1/8"	63-542-502DC
BD543/542-133DC-TPD	133mm	5 1/4"	63-542-504DC



Shroud Selection Table

Shroud Product Code	Diameter		Compatibility
	Metric	Imperial	
BD543/542-SHROUD-121/119-DB	121mm	4 3/4"	40-542-412
BD543/542-SHROUD-124/122-DB	124mm	4 7/8"	40-542-414
BD543/542-SHROUD-127/125-DB	127mm	5"	40-542-500
BD543/542-SHROUD-130/128-DB	130mm	5 1/8"	40-542-501
BD543/542-SHROUD-133/131-DB	133mm	5 1/4"	40-542-503



General Specifications

Description	Metric	Imperial
Piston Case OD	116mm	4 9/16"
Hammer length	1191mm	3' 10 7/8"
Hammer Weight	62.0kg	136lb 11oz
Bit Size Range	121-136mm	4 3/4"-5 3/8"
Drill Rod Diameter	114mm	4 1/2"
Spanner Flat Width – Inner Cylinder	44.5mm	1 3/4"
Spanner Flat Width – Top Sub	50mm	2"

Air Consumption

Pressure		Consumption	
psi	bar	cfm	m ³ /min
400	27.6	830	23.3
450	31.1	900	25.4
500	34.5	960	27.2
550	38.0	1032	29.5
600	41.4	1100	31.2

REVERSE CIRCULATION SERVICE GUIDE

When breaking a hammer down, avoid placing breakout tools in the mid-section of the cylinder (barrel). Recommended breakout points are 130mm from each end of cylinder. Wrap around chain breakouts are recommended (see diagram). When holding bits for breakout, use a secure plate or opt to grab the bit head, but never on the gauge row buttons.

This information is included with every Hammer purchase.



DO NOT APPLY HEAT OR DIRECT IMPACT TO HAMMER WHEN CRACKING JOINTS AS THIS TYPICALLY DAMAGES THE HAMMER.



Figure 1: Gripping Locations for BD DRILL Reverse Circulation Hammer

Lubrication: Correct lubrication is critical to performance and longevity.

Recommended:

- Oil Grade: SAE 320 Hammer Oil for most operating conditions
- Rate: 2 litre/hour minimum via automatic feeder
- Double the rate when injecting fluids such as water, foam & polymers
- Clean and relubricate the hammer each day after use to prevent corrosion and premature failure

