

BD52 R.C. HAMMER

Compatibility: RE040, PR40, RE052, MR120, AD660



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	121	4 3/4
Bit	126 – 142	4 – 5 5/8"
Suits medium to hard ground conditions		



BD52 R.C. HAMMER

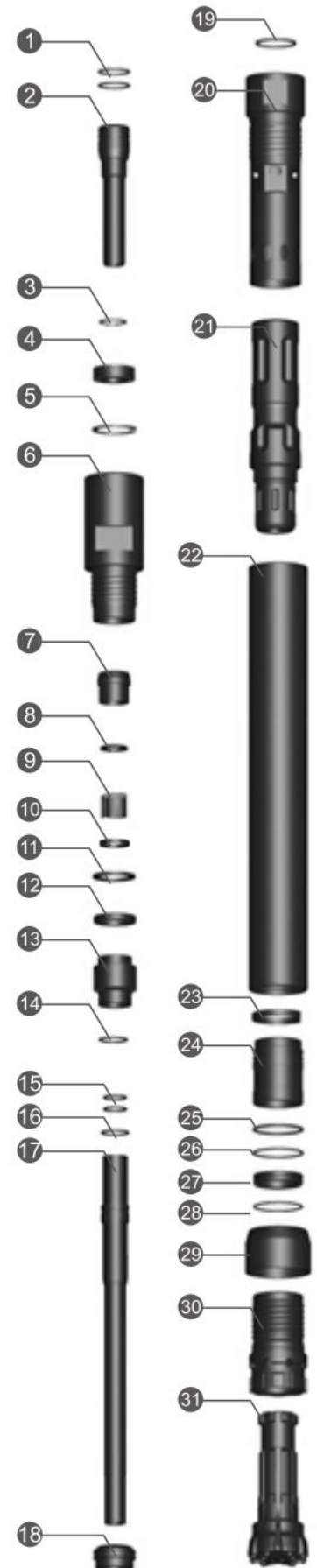
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Top Sub Assembly

Product Code	Description	Amt	Compatibility
A	Top Sub Assembly Metzke 4.5"		
2	BD52-ASCREEN-M4.5	1	20-052-M45
3	BD52-CIRCLIP	1	41-D1300-0850
4	BD52-AIRSCREEN-M4.5	1	21-040-00T
6	BD52-TSUB-M4.5	1	33-052-M45
B	Top Sub Assembly Remet 4.5"		
1	BD040/52-SK-ASCREEN-R4.5	2	-
2	BD040/52-ASCREEN-R4.5	1	20-040-R45
3	BD040/52-CIRCLIP	1	41-D1300-0850
4	BD040/52/AIRSCREEN-R4.5	1	21-040-00T
5	BD040/52-CIRCLIP	1	41-D1400-0520
6	BD52-TSUB-R4.5	1	33-052-R45

Hammer Assembly

Product Code	Description	Amt	Compatibility
7	BD040/52-CVALVE	1	25-052-000
8	BD040/52-SK-CVALVE	1	38-052-001
9	BD040/52-SPRING	1	22-040-000
10	BD040/52-SSEAT	1	39-040-000
11	BD040/52-MUR-STEEL	1	24-040-000
12	BD040/52-MUR-VITON	1	28-040-000
13	BD040/52-DIST	1	29-040-000
14	BD040/52-SK-DIST	1	38-052-001
15	BD52-SK-STUBE2	2	38-052-001
16	BD52-SK-STUBE1	1	38-052-001
17	BD52-STUBE	1	37-052-000
18	BD52-STUBE-MOUNT	1	30-052-000
19	BD52-SK-STUBE-M	1	38-052-001
20	BD52-ICYL	1	31-052-000
21	BD52-PISTON	1	36-052-000
22	BD52-ECYL	1	35-052-000
23	BD52-PRING	1	23-052-000
24	BD52-BUSH	1	26-052-000
25	BD52-SK-BUSH1	1	38-052-001
26	BD52-SK-BUSH2	1	38-052-001
27	BD52-SRING	1	27-052-000
28	BD52-SK-SRING	1	38-052-001
29	BD52-SHROUD-136/134 BD52R-SHROUD-136/134	1	40-052-506 40-052M-506
30	BD52-DSUB BD52R-DSUB	1	16-052-000 16-052R-000
31	BD52-136DC BD52R-136DC	1	63-052-506DC 63-052R-506DC
32	BD52-SK	1	38-052-001



Bit Selection Table

Bit Product Code	Diameter		Compatibility
	Metric	Imperial	
BD52-133DC-TPD	133mm	5 1/4"	63-052-504DC
BD52-136DC-TPD	136mm	5 3/8"	63-052-506DC
BD52-140DC-TPD	140mm	5 7/16"	63-052-508DC
BD52-143DC-TPD	143mm	5 5/8"	63-052-510DC



Shroud Selection Table

Shroud Product Code	Diameter		Compatibility
	Metric	Imperial	
BD52-SHROUD-133/130.5-DB	133mm	5 1/4"	40-052-503
BD52-SHROUD-136/133.5-DB	136mm	5 11/32"	40-052-505
BD52-SHROUD-140/137.5-DB	140mm	5 1/2"	40-052-507
BD52-SHROUD-143/140.5-DB	143mm	5 5/8"	40-052-509
BD52-SHROUD-165/162.5-DB	165mm	6 1/2"	40-052-607



General Specifications

Description	Metric	Imperial
Piston Case OD	121mm	4 3/4"
Hammer length	1127mm	3' 8 3/8"
Hammer Weight	68.5 kg	151lb
Bit Size Range	126 - 165mm	4 - 6 1/2"
Drill Rod Diameter	114mm	4 1/2"
Spanner Flat Width – Inner Cylinder	50mm	2"
Spanner Flat Width – Top Sub	50mm	2"

Air Consumption

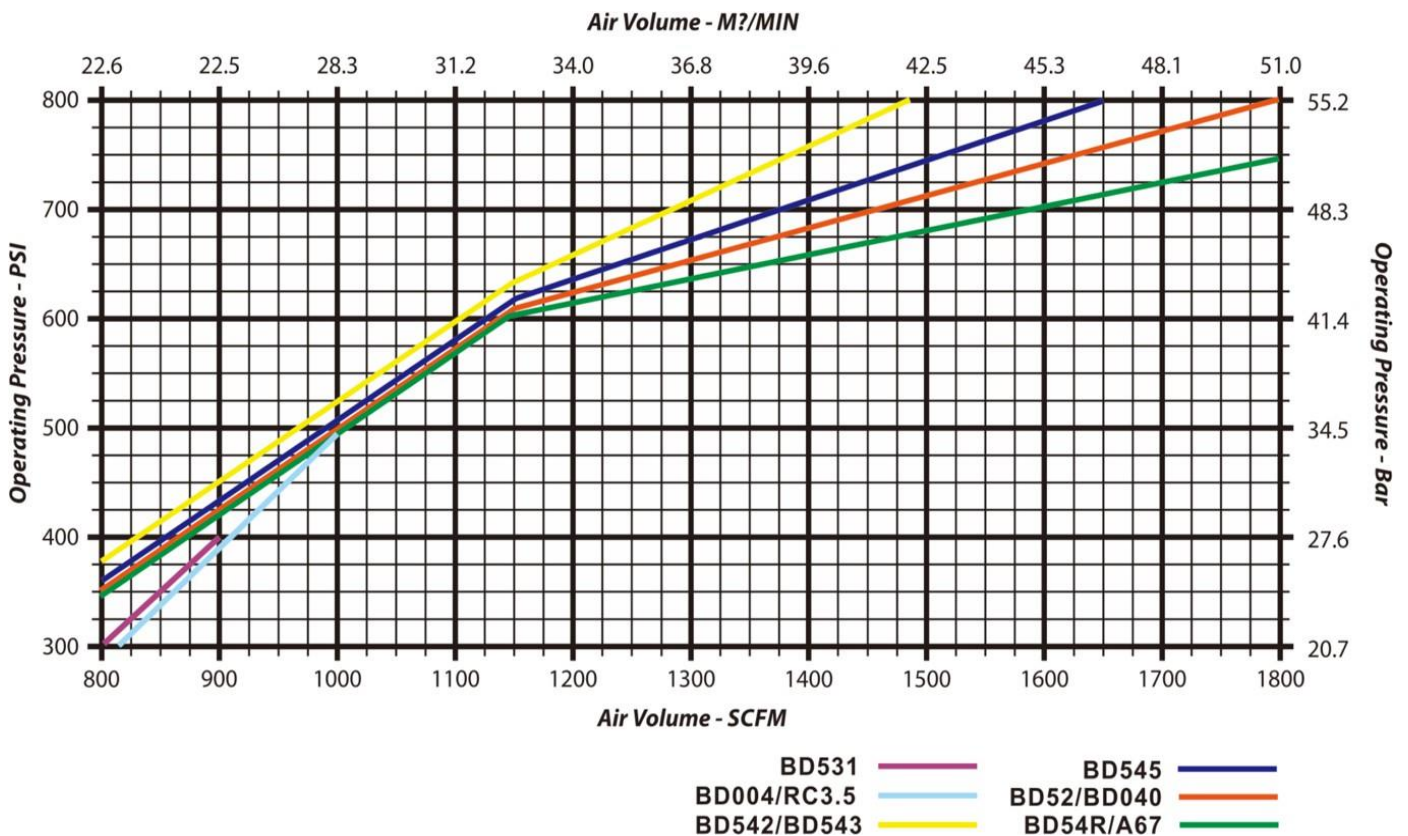
Pressure		Consumption	
psi	bar	cfm	m ³ /min
400	27.6	875	24.3
450	31.1	950	27.1
500	34.5	1000	28.3
550	38.0	1075	30.5
600	41.4	1125	32.0

REVERSE CIRCULATION GENERAL SPECIFICATIONS

Hammer	BD351	RC3.5	BD004			BD542			BD543			BD545		BD040				BD52		BD54		A67
Top sub thread	R3"	R3"	R3.5"	R4"	M4"	R3.5"	R4"	M4"	R4"	M4"	M4.5	R4.5	M4"	R4"	M4.5"	R4.5"	m4.5"	R4.5"	M4.5"	R4.5	M4.5"	
Package case size	(L)1100 (W)110 (H)120	(L)1230 (W)120 (H)150	(L)1300 (W)150 (H)180			(L)1230 (W)140 (H)170			(L)1260 (W)150 (H)180			(L)1300 (W)150 (H)180				(L)1300 (W)160 (H)190		(L)1300 (W)160 (H)190		(L)1330 (W)160 (H)190		
Recommended bit size, mm	86-100	100-110	111-125			113-133			123-140			127-140				133-143		136-146		136-146		
Bit shank	RE531	RC3.5	RE004			RE542			RE543			RE545		RE040				PR52		PR54		BD67
External diameter, mm	81	94	107			109.5			116			117.5		121				120.5		130		132
Length excl. thread, mm (Less bit)	1069	1184	1252			1191			1261			1210				1227		1294		1200		
Hammer weight, Kg (Less bit)	29	44	52			57			63			65		53.8	47.5	69.8	69.4	68.5		84.5		81.8
Piston weight, Kg	4.8	8.3	10.5			11.6			11.6			13.5		13.6				14.3		16.8		17
Wrench flat, mm	No wrench flat	(L)82 (W)40	(L)90 (W)40	(L)90 (W)50	(L)90 (W)50	(L)95 (W)45	(L)95 (W)45	(L)95 (W)50	(L)95 (W)45	(L)95 (W)50	(L)102 (W)50	(L)102 (W)50	(L)94 (W)50	(L)94 (W)50	(L)94 (W)50	(L)94 (W)50	(L)94 (W)50	(L)94 (W)50	(L)100 (W)50	(L)100 (W)50	(L)95 (W)51	

Drilling conditions and project specifications may require a larger air package to be used

AIR CONSUMPTION/OPERATING PRESSURE



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

