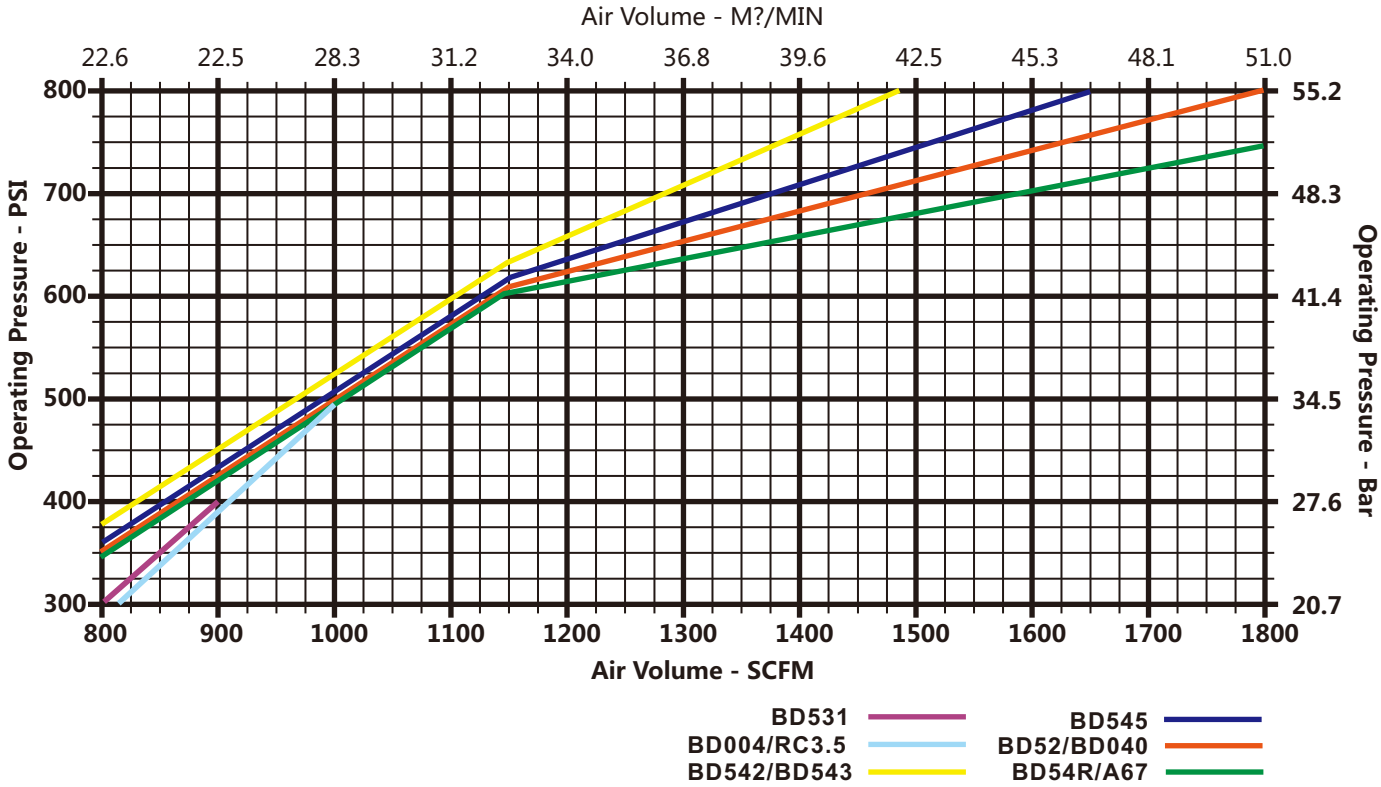
Black Diamond
Drilling Services Australia
BD Drill PTY LTD ABN 17 607 927 560

SPECIFICATIONS

Hammer	BD531	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 (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	69.4	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)45	(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 larger air package to be used

AIR CONSUMPTION/OPERATING PRESSURE



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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 type breakouts are recommended. (See diagram). When holding bits for breakout, use a secure plate or pot 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.

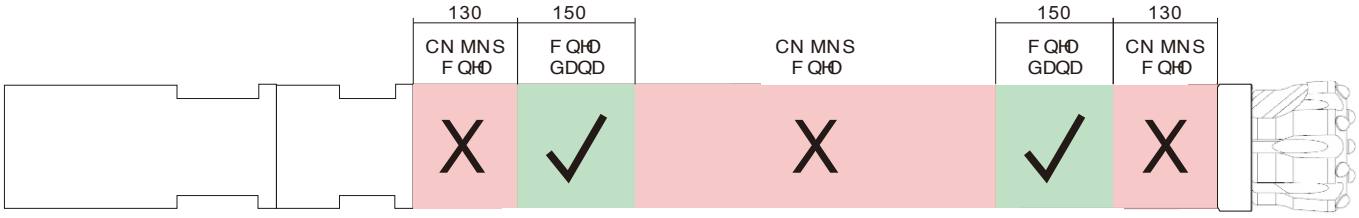


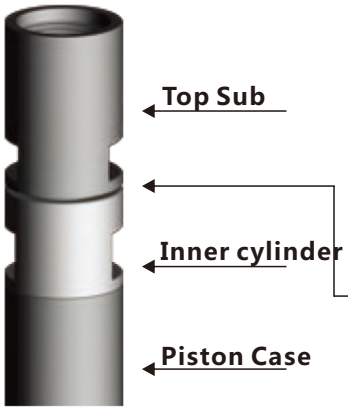
Figure1:Gripping Locations For BD DRILL Reverse Circulation Hammer

Lubrication

Correct lubrication is critical to the performance and longevity of the hammer.

Recommends:

- Oil Grade: SAE 320 Hammer Oil for most operating conditions
- Rate: 2 liter/hour minimum via an 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



Stand off is the gap existing between the top sub and the inner cylinder when the is assembled and hand-tightenedhammer

Stand off
0,6 mm to 1 mm
0.024' ' to 0.04' '

BD531 R.C. HAMMER

BD Drill

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3” R.C. Hammers	Item Description	Weight Kg	Part Number
	1 Top Sub-Remet 3”	3.76	BD531-TSUB-R3
	2 O Ring (Adaptor Tube Remet 3”) x 2	0.01	BD531-SK-TSUB-R3
	3 Adaptor Tube Remet 3”	1.85	BD531-ASCREENR3
	4 O Ring (Sample Tube) x 4	0.01	BD531-SK-STUBE
	5 Sample Tube	1.97	BD531-STUBE
	6 Circlip	0.04	BD531-CIRCLIP
	7 O Ring (Distributor 1) x 2	0.01	BD531-SK-DIST-1
	8 O Ring (Distributor 2) x 1	0.01	BD531-SK-DIST-2
	9 Distributor	0.37	BD531-DIST
	10 Check Valve/Plunger	0.08	BD531-CVALVE
	11 O Ring (Check Valve) x 1	0.01	BD531-SK-CVALVE
	12 Spring	0.1	BD531-SPRING
	13 Mount Sample Tube	0.49	BD531-STUBE-MOUNT
	14 Inner Cylinder/Top Barrel	3.4	BD531-ICYL
	15 O Ring (Inner Cylinder) x 1	0.01	BD531-SK-ICYL
	16 Piston	4.69	BD531-PISTON
	17 External Cylinder/Barrel/Piston Case	9.2	BD531-ECYL
	18 Seal Cover/ O Ring (Bearing Bush) x 2	0.02	BD531-SCOVER
	19 Bearing Bush	1.03	BD531-BUSH
	20 Bit Stop Ring	0.08	BD531-SRING
	21 O Ring (Bit Stop Ring) x 1	0.01	BD531-SK-SRING
	22 Shroud	0.45	BD531-SHROUD-85/83
	23 Drive Sub	1.6	BD531-DSUB
	24 Drill Bit	4.2	BD531-85DC-TV
	25 Seal Kit (Item 2+4+7+8+11+18+21)	0.2	BD531-SK

Technical Data

Length(Less bit)	Weight(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1069mm	29.0kg	Φ81mm	BD531	Φ84- Φ100	3 “ Remet
Box Size	Impact rate At 2.4Mpa	Recommended rotation speed		Air Consumption 200-500(PSI)	
1100x110x120mm	30Hz	25-40r/min		300-1200(CFM)	