

BD547 RC Hammer

Compatibility: RE547, MR120, SR747



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 | 124.4 | 4 7/8 |
| Bit | 133 – 146 | 5 ¼ - 5 ¾" |
| Suits medium to hard ground conditions | | |

BD547 RC Hammer



Black Diamond
Drilling Services Australia

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Top Sub Assembly

| Product Code | Description | Amt | Compatibility |
|---------------------------------------|---------------------|----------------------------------|-----------------|
| A Top Sub Assembly Remet 4.5" | | | |
| 1 | BD547-CIRCLIP-R4.5 | Circlip A | 1 41-D1300-0900 |
| 2 | BD547-SK-ASCREEN4.5 | O Ring (Adaptor Tube Remet 4.5") | 4 38-547-000 |
| 3 | BD547-ASCREEN-R4.5 | Adaptor Tube Remet 4.5" | 1 20-545-R45 |
| 4 | BD547-SK-ASCREENMR | O Ring (Adaptor Tube) | 2 38-547-000 |
| 5 | BD547-TSUB-R4.5 | Top Sub Remet 4.5" | 1 33-547-R45 |
| B Top Sub Assembly Metzke 4.5" | | | |
| 1 | BD547-CIRCLIP-M4.5 | Circlip A | 1 41-D1300-0850 |
| 3 | BD547-ASCREEN-M4.5 | Adaptor Tube Metzke 4.5 | 1 20-545-M45 |
| 4 | BD547-SK-ASCREENMR | O Ring (Adaptor Tube) | 2 38-547-000 |
| 5 | BD547-TSUB-M4.5 | Top Sub Metzke 4.5" | 1 33-547-M45 |

Hammer Assembly

| Product Code | Description | Amt | Compatibility |
|--------------|---------------------|--------------------------------------|-----------------|
| 6 | BD547-STUBE | Sample Tube | 1 37-545-000 |
| 7 | BD547-SK-STUBE | O Ring (Sample Tube) | 4 38-547-000 |
| 8 | BD547-CIRCLIP-4 | Circlip B | 1 41-D1300-0850 |
| 9 | BD547-AIRSCREEN | Air Screen | 1 21-545-000 |
| 10 | BD547-DIST | Distributor | 1 29-545-000 |
| 11 | BD547-SK-DIST | O Ring (Distributor) | 2 38-547-000 |
| 12 | BD547-CVALVE | Check Valve/Plunger | 1 25-545-000 |
| 13 | BD547-SK-CVALVE | Y Ring (Check Valve) | 1 38-547-000 |
| 14 | BD547-SPRING | Spring | 1 22-545-000 |
| 15 | BD547-SK-ICYL | O Ring (Inner Cylinder) | 1 38-547-000 |
| 16 | BD547-ICYL | Inner Cylinder/Top Barrel | 1 31-547-000 |
| 17 | BD547-PISTON | Piston | 1 36-547-000 |
| 18 | BD547-ECYL | External Cylinder | 1 35-547-000 |
| 19 | BD547-BUSH | Bearing Bush | 1 26-545-000 |
| 20 | BD547-SK-BUSH | O Ring (Bearing Bush) | 2 41-D1300-0900 |
| 21 | BD547-PRING | Bush Retaining Ring | 1 23-545-000 |
| 22 | BD547-SRING | Bit Ring | 1 27-545-000 |
| 23 | BD547-SK-SRING | O Ring (Bit Ring) | 1 41-D1300-0900 |
| 24 | BD547-SHROUD127/125 | Shroud | 1 40-545-415 |
| 25 | BD547-DSUB | Drive Sub | 1 16-545-000 |
| 26 | BD547-133DC | Drill Bit | 1 63-545-504DC |
| 27 | BD547-SK | Seal Kit (Item 2+4+7+11+13+15+20+23) | 1 38-547-000 |



Bit Selection Table

| Bit Product Code | Diameter | | Compatibility |
|------------------|----------|----------|---------------|
| | Metric | Imperial | |
| BD547-133DC-TPD | 133mm | 5 ¼" | 63-547-504HF |
| BD547-136DC-TPD | 136mm | 5 3/8" | 63-547-506DC |
| BD547-140DC-TPD | 140mm | 5 ½" | 63-547-508DC |
| BD547-143DC-TPD | 143mm | 5 5/8" | 63-547-510CF |



Shroud Selection Table

| Shroud Product Code | Diameter | | Compatibility |
|---------------------------|----------|----------|---------------|
| | Metric | Imperial | |
| BD547-SHROUD-133/130.5-DB | 133mm | 5 ¼" | 40-547-503 |
| BD547-SHROUD-136/133.5-DB | 136mm | 5 11/32" | 40-547-505 |
| BD547-SHROUD-140/137.5-DB | 140mm | 5 ½" | 40-547-507 |
| BD547-SHROUD-143/140.5-DB | 143mm | 5 5/8" | 40-547-509 |
| BD547-SHROUD-146/143.5-DB | 146mm | 5 ¾" | 40-547-511 |



General Specifications

| Description | Metric | Imperial |
|-------------------------------------|------------|----------------|
| Piston Case OD | 124.4mm | 4 7/8" |
| Hammer length | 1292mm | 4' 2 7/8" |
| Hammer Weight | 80.0 kg | 176lb 6oz |
| Bit Size Range | 133 -146mm | 5 1/4 – 5 3/4" |
| Drill Rod Diameter | 114mm | 4 1/2" |
| Spanner Flat Width – Inner Cylinder | 51mm | 2" |
| Spanner Flat Width – Top Sub | 50mm | 2" |

Air Consumption

| Pressure | | Consumption | |
|----------|------|-------------|--------|
| psi | bar | cfm | m³/min |
| 400 | 27.6 | 850 | 24.0 |
| 450 | 31.1 | 925 | 25.1 |
| 500 | 34.5 | 1000 | 28.3 |
| 550 | 38.0 | 1050 | 29.8 |
| 600 | 41.4 | 1125 | 32.0 |

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

