



ROAD CRANKSET OWNER'S MANUAL



Figure 1- Bontrager road crankset

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READ THIS MANUAL BEFORE YOU RIDE

Please read all of the supplied instructions thoroughly before using your new crankset; the manuals contain important safety and maintenance information.

If you do not understand the information in this manual, or you have a question about your crankset that this manual does not cover, consult your Bontrager dealer. If you have a question or problem that your Bontrager dealer can't handle, contact us at:

Bontrager Components
Attn: Customer Service
801 W. Madison Street

920.478.4678
<http://www.bontrager.com>
Waterloo, Wisconsin 53594

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Introduction

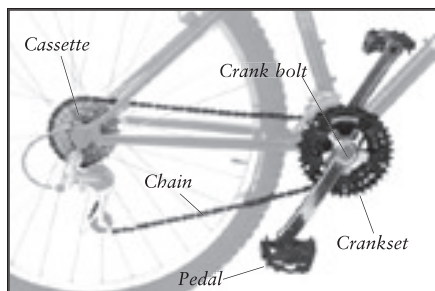


Figure 2- Drivetrain parts

The crankset is part of the drivetrain, the group of parts on the bicycle that transmit power to the rear wheel (Figure 2):

- Pedals (and toe-clip assemblies on some models)
- Crankset- left and right crank arms, chainring(s), and bottom bracket (the axle and bearings on which the crankset rotates).
- Chain
- Cassette

This section explains how to inspect, adjust, and lubricate your crankset.

Inspect your crankset regularly

Once a month check that the chain is clean, free of rust, and properly oiled. A dirty chain can prematurely wear the chainrings. All links of the chain should pivot smoothly and without squeaking, and no links of the chain should be deformed.

Every 3 months check your chain for wear with a chain wear gauge or a ruler. Each full link of a new chain measures one inch. If 12 links of your chain measures $12\frac{1}{8}$ inches or more, it should be replaced. With good maintenance, a chain usually lasts 1000 to 1500 miles. A worn chain will cause the chainrings of your crankset to wear prematurely. Replacing the chain takes special tools and training and should only be done by your dealer.

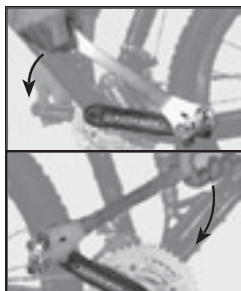


Figure 3- Tightening pedals

Every 3 months inspect your pedals. Tighten the pedals into the crank arms; turn the right pedal clockwise, but the left pedal counter-clockwise (Figure 3):

- Pedals: 350-380 lb·in (40.2-42.9 Nm).

Every 3 months inspect the crankset. Clean the chainrings and inspect them for damage. If any teeth are bent or broken, have the chainring replaced by your dealer. Note that on some chainrings, a few teeth have a special shape to enhance shifting. Also check the bottom bracket adjustment, and tighten the crank bolts:

- Crank bolt (Figure 2): 360-415 lb·in (41-47 Nm)

- Chainring bolts (steel): 70-95 lb·in (7.9-10.7 Nm)
- Chainring bolts (aluminum alloy): 72-80 lb·in (8-9 Nm)

Lubrication and cleaning

Once a month clean and oil the chain. Place a rag behind the chain to avoid getting oil on the rest of the bicycle. Use Wrench Force® synthetic chain lube or similar lubrication. See your dealer for a recommended oil. After oiling your chain, wipe off the excess oil with a rag.

When installing a threaded part, apply a small amount of bicycle grease to the threads, except for aluminum chainring bolts. With aluminum chainring bolts apply a drop of Loctite 222 to the threads.

INSTALLATION INSTRUCTIONS FOR THE EXPERIENCED MECHANIC

These instructions explain the steps to remove an existing crankset and install a new one. The correct installation of your crankset is critical to your safety, so this work should be performed only by an experienced mechanic. If you are not sure of your ability to correctly install this crankset and adjust the parts, have the crank installed by your Bontrager dealer.

Check all parts' compatibility before installing

The crankset interfaces with the pedals, bottom bracket, chain, and front derailleur with its shifter. Each of these parts must be compatible with the crankset for the systems of a bicycle to function correctly. If you are not sure if this crankset is compatible with your bicycle, consult your dealer.

Pedal removal and installation

To remove the pedals

Note: There are right and left pedals, usually marked with a letter stamped on the end of the pedal axle, or on the wrench flats.

1. Turn the right pedal spindle counter-clockwise to remove the right pedal, the opposite direction of tightening (Figure 3).
2. Turn the left pedal axle clockwise to remove the pedal.

To install the pedals

1. Apply a light coat of Wrench Force® synthetic grease or a similar lubricant over all the threads.

See your dealer for a recommended grease.

2. Place the pedal washer over the pedal threads.
3. Thread the pedal into the crank arm by hand.
4. Follow the instructions for tightening pedals in *Inspect your crankset regularly*.

Crank arm removal and installation

The left crank arm is held in place by a crank bolt (Figure 2).

To remove a crankarm

1. Loosen the crankarm bolt on the left crankarm.
2. Continue turning the crank bolt to remove the crank arm.

To install a crankarm

With a self-extracting bolt, the parts must be correctly assembled (Figure 6).

1. Apply a light coat of Wrench Force® synthetic grease or a similar lubricant over all the threads, and the bottom bracket axle splines.

See your dealer for a recommended grease.

2. Align the splines of the axle with the crank arm, and slide the arm onto the axle.

When installing the crankarm, note the alignment of the opposite crank arm.

3. Carefully engage the threads of the crank bolt.
4. Tighten as in *Inspect your crankset regularly*.

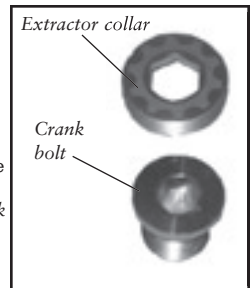


Figure 6- Self-extractor bolt parts

Bottom bracket removal and installation

A conventional crankset is comprised of a left crankarm, right crankarm, and bottom bracket. With the Bontrager Road crankset, the right crank arm and bottom bracket are inseparable.

To remove a standard bottom bracket

1. Loosen the crankarm bolt on the left crankarm and remove the left crankarm.
2. Loosen the crankarm bolt on the right crankarm and remove the right crankarm.
3. Using the proper tool, loosen and remove the left ("adjustable") bottom bracket cup.

The left cup is right-hand threaded, and the right cup is left-hand (reverse) threaded.

3. Using the proper tool, loosen and remove the right ("fixed") bottom bracket cup.

To install a Giga-Pipe bottom bracket

Make sure the frame's bottom bracket shell threads are clean and in good condition. If necessary, chase and face the threads.

Grease all threaded surfaces, the bearing surfaces of the crank bolt, the interfaces between the bearings and axle, the axle splines, and also the bearing side of the seals.

1. Install the right bottom bracket cup, and tighten to 300-360 lb•in (34-41Nm).
2. Install the left bottom bracket cup, and tighten to 300-360 lb•in (34-41Nm).
3. Pass the bottom bracket axle through the right cup to the left cup.
4. Attach the left crankarm and tighten the crank bolt to 360-415 lb•in (41-47 Nm).
5. Check the left crankarm for play.

If there is play, remove both crankarms, grease the contact between the bottom bracket axle and the bearings, and reinstall. It may require installing the cranks several times to eliminate all play.

Bontrager Warranty

Trek Bicycle Corporation warrants each new Bontrager component against defects in workmanship and materials for a period of one year from the date of sale.

This warranty does not cover-

- Normal wear and tear
- Improper assembly
- Improper follow-up maintenance
- Installation of parts or accessories not originally intended for, or compatible with, the wheels as sold
- Damage or failure due to accident, misuse, abuse, or neglect
- Labor charges for part replacement or changeover

This warranty is void in its entirety by any modification of the component or its parts.

This warranty is expressly limited to the repair or replacement of a defective item and is the sole remedy of the warranty. This warranty extends from the date of purchase, applies only to the original owner, and is not transferable. Trek is not responsible for incidental or consequential damages. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

Claims under this warranty must be made through an authorized dealer. Proof of purchase is required.

This warranty gives the consumer specific legal rights, and those rights may vary from place to place. This warranty does not affect the statutory rights of the consumer.