



Quick Releases

A Crash Course on Clamping

Introduction

The term "quick release" can refer to just about anything on a bicycle that is fast and convenient to open or remove. The quick releases this pamphlet refers to are the ones that hold the seatpost height adjustment and clamp the wheels of your bicycle to the frame and fork. Correct use of quick releases is very important for safe bicycle operation. Fortunately, learning the proper way to use quick releases is very easy....

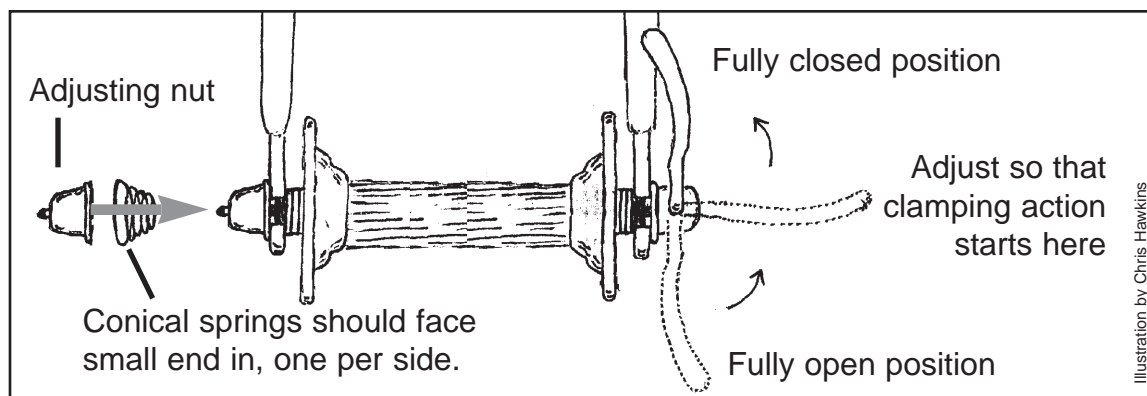
Quick Release Anatomy

The entire quick release is often referred to as a "skewer." Skewers are usually comprised of a rod with two endcaps: one is fixed and has a lever attached to it, the other is an adjustable nut (see diagram). Wheel quick releases usually have two small conical springs that sit on the rod between the endcaps with their small ends facing inward. These springs are a convenience — they center the quick release when properly installed and are not necessary for proper operation of the quick release. They can interfere with the proper functioning of the quick release if improperly installed, however.

Quick Release Installation

To install a wheel quick release, remove the adjustable nut and one conical spring from the skewer rod, insert the skewer through the axle, replace the conical spring (small end in) and thread the nut back on the rod. Note that front and rear wheel quick releases are different lengths and are not interchangeable.

To install a seatpost quick release, remove the adjustable nut from the skewer rod, insert the skewer through the seatpost collar in the frame and thread the nut back on the rod.



Since the rear of a bike's right side is crowded with other components, rear wheel quick releases are installed so that their levers are on the left side of the bike. Traditionally, front wheel and seatpost quick releases are also installed so that their levers face to the left. This is done to match the rear wheel quick release, but they should work properly in either orientation.

Quick Release Operation

All quick releases work the same way — as the lever is thrown (moved from the open position to the closed position), the rod is pulled into the fixed endcap. The adjusting nut is used to change the amount of space between the two endcaps to get the desired clamping action when the lever is thrown. When correctly adjusted, **Continues...**

the clamping action will start when the lever is half-way through its travel. Threading the adjusting nut on too much will require excessive force to close the lever, and not threading it on enough will not create adequate clamping force. Practice using your quick releases by opening and closing them a few times while changing the adjusting nut's position.

Quick Release Notes

- Writing that is on the lever as well as the shape of the lever can help you spot when a quick release is used correctly or incorrectly. When closed, most quick release levers curve in towards the bike, and the word "close" or "closed" can be seen. When opened, the lever will curve away from the bike and the word "open" will be visible.
- To keep the quick release in good working order, oil the skewer threads (remove the adjusting nut to expose them) and the lever mechanism (apply oil where the lever enters its endcap). Do this yearly, or whenever the lever feels like it needs it.
- When installing the wheels, make sure the axles are all the way in the dropouts (part of the frame and fork that the axles contact). Check to see that the wheel is centered in the frame/fork before closing the quick release. If the wheel is crooked, it will affect the bicycle's brakes.

- Orient front wheel quick releases so that the lever is in front of the fork blade when it is closed. Orient rear wheel quick releases so that the lever is near a portion of the frame. This minimizes the chance of snagging anything that might cause a loss of control or cause your skewer to open, plus it provides leverage points on the fork and frame to enable easy opening and closing of the quick release.

- Quick releases are convenient, but they also create a security problem, allowing your wheels and seat to be easily stolen. When parking your bike, make sure you lock both wheels, the seat and frame to an immovable object.

- The seatpost height adjustment should allow a rider's leg to be almost completely extended at the bottom of a pedal stroke (i.e. a little bend should be left in the knee). This will minimize knee strain and also prevent injury from hyperextending your knee. Seatposts can be adjusted lower for children and newer adult riders to allow their whole foot to touch the ground while seated on the bicycle.

- Be aware that seatposts must be inserted in the bicycle frame a certain amount for safe operation. Completely remove the seatpost from the frame and inspect it. Near the bottom of the seatpost, you should see some indication of the minimum amount the seatpost should remain inserted in the frame for safe operation.

*Check
all quick
releases
prior to
riding!*