



Trek 820 Spokes Replacement

This guide covers how to replace a snapped or...

Written By: Kaveh Karimiyanha



INTRODUCTION

This guide covers how to replace a snapped or broken spoke on the front wheel of a Trek 820 Mountain Bike.

All the spokes in a wheel work together to provide structural integrity and ensure alignment. Spokes may malfunction if too large a concentrated force is exerted on the wheel. One way to check for a bent spoke is to spin the wheel, and see if it wobbles in between the brake pads. If you don't replace a bent or broken spoke, adjacent spokes may become damaged as a result of compensating for the broken one. If the wheel falls out of alignment due to a broken spoke, the brakes may also rub on the rim. This adds unnecessary friction which prematurely wears out the brake pads and slows you down. If your rim becomes too wobbly due to broken or loose spokes, there will be more steps required past replacing the spokes. Reference this [guide](#) on how to true a wheel.

Caution: If the spoke has snapped, the end of it may become sharp.

TOOLS:

6-in-1 Screwdriver (1)

Step 1 — Front Wheel



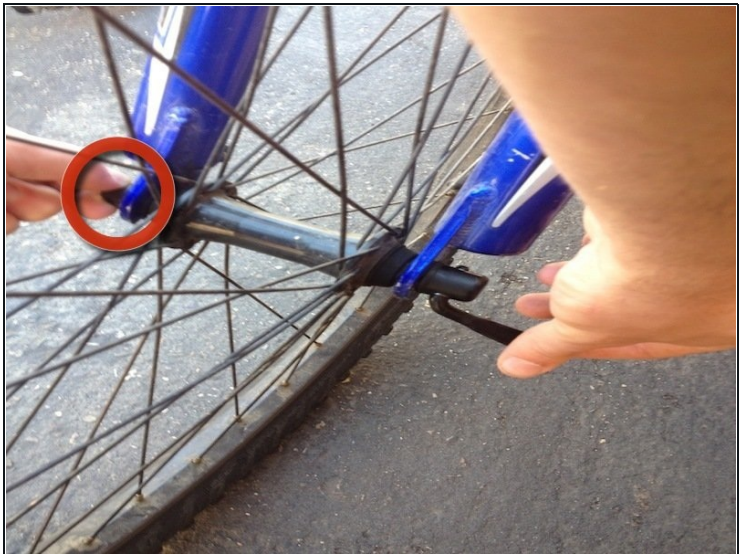
- Facing your bike, straddle your front wheel between your knees.
- Locate the front brake at the top of the fork. It will more than likely look like the picture on your left.
- Since the tire is normally wider than the space between the brake pads, you must first release the tension in the brake wire. To do this, run your right hand under both brake calipers and push them inwards towards one another.

Step 2



- With the brake wire sufficiently loosened, unhook the metal tube that contains the brake wire (called the noodle) from the brake wire holder using your left hand.
- The brake will now be open wide enough to permit removal of the wheel.

Step 3



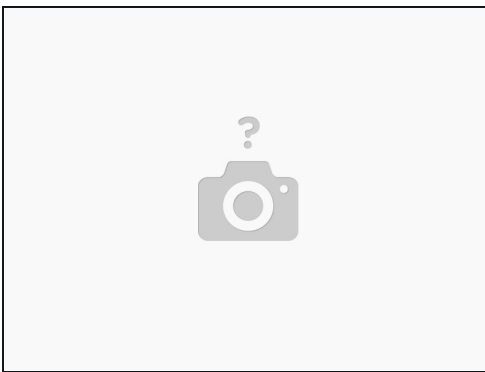
- Find the quick release lever on the outside of the bike's fork on the right hand side. Flip the lever down and turn the lever counter clockwise, loosening the lever until it comes off.

Step 4



- After the quick release lever is removed, the wheel can be separated from the front fork.

Step 5



- In reassembling the wheel to the bike, perform the steps in reverse order.
- With the axle all the way into the fork slots, tighten the quick release lever into the fork end securely. It should take a modest amount of force applied to tighten the axle to the fork.
- Squeeze the brake calipers together and return the cable noodle back into the holder.
- Make sure you go back, and check to make sure its snug so that the wheel has no way of coming back off.

Step 6 — Tire



- Locate the valve stem and remove the valve stem cap if one is present.

Step 7



- Begin releasing tire air pressure by pressing down on the small rod in the center of the valve stem. A hissing sound will indicate that air is leaving the tire.
- Continue to release air until the tire becomes soft and flexible. The hissing sound should become quiet or stop altogether.

Step 8



- Insert the flathead screwdriver, or another sturdy, long object, between the edge of the tire and the wheel rim.

⚠ Be careful not to damage the inner tube when inserting and moving the screwdriver or other tool. The inner tube is fragile and may be pinched between the wheel rim and tool.

- Work the edge of the tire out of the wheel rim using a screwdriver, pulling the edge of the tire away from the center of the wheel and out of the rim.

Step 9



- Continue around the wheel rim until the whole tire is free from the rim. Now you may separate the tire from the wheel.

⚠ Be careful not to damage the valve stem as you pull the tire and inner tube off of the wheel rim together.

Step 10



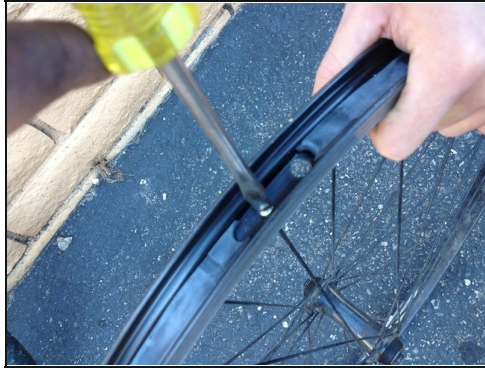
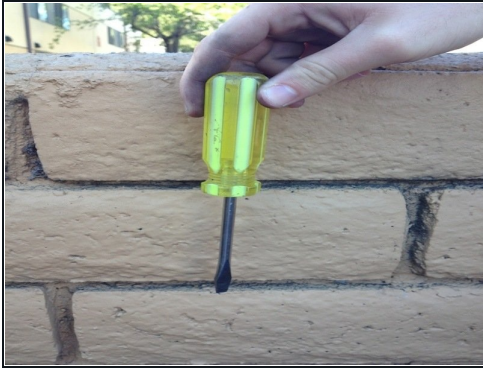
- Remove the inner tube from the tire by simply pulling it from the tire carcass.

Step 11 — Spokes



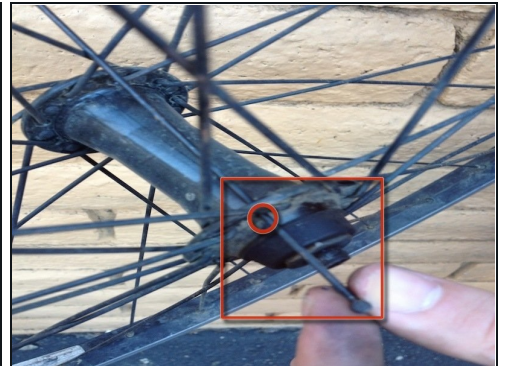
- Slowly peel back the layer of rubber that covers the 32 screws on the wheel.

Step 12



- Remove the screw using the flathead screwdriver.
- ① You will need to alternate between steps #12 and #13 repeatedly because the spokes have to be removed one at a time.
- ① All screws will be the same size.
- ⚠ Only remove the screws of the spokes you are replacing.

Step 13



- Once a screw is removed, if that spoke did not fall out, gently remove it from the wheel.
- Maneuver the spoke so that it is perpendicular to the plane of the wheel, then slide the spoke out.

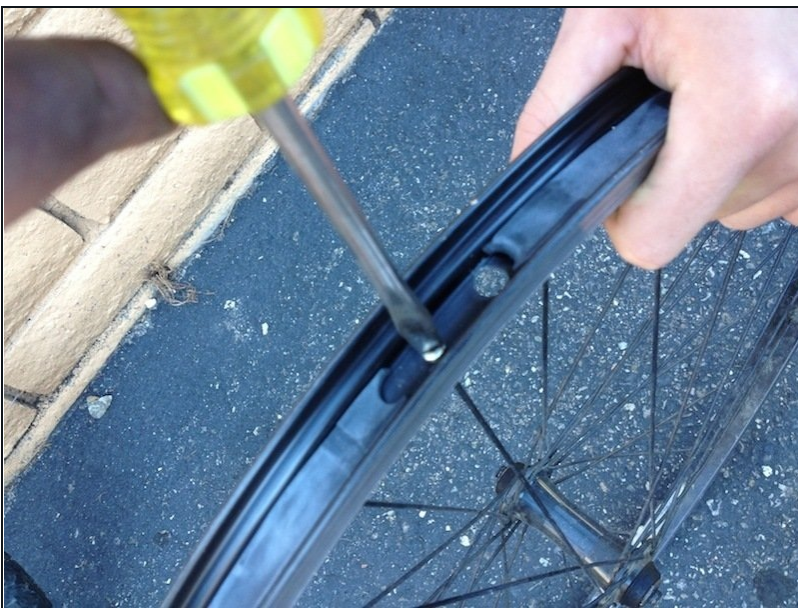
Step 14



- Insert the new spoke into the empty hole on the hub.

⚠ If you are replacing multiple spokes, you will need to alternate between steps #14 and #15. The spokes must be replaced one at a time.

Step 15



- Use the flathead screwdriver with the screw removed in step #12 to attach the spoke to the wheel, securing it in place.

To reassemble your wheel after following steps #4, and #5 simply reattach the rubber tire.