



## Service Information

### SPA suspension fork rebuild

These instructions explain how to repair a Bontrager SPA suspension fork (Figure 1) that is equipped with the incorrect compression bolt.

#### Before you begin

Not all SPA forks require this rebuild. Refer to the dealer bulletin for information identifying bicycles subject to this recall service. Also inspect the fork before you start to make sure the fork has not already been serviced. Forks that have been rebuilt have a RED plug under the fork crown (see Figure 13, page 5).

#### Tools required

- Ratchet driver
- Socket extender
- Socket with 6 mm allen head
- 10 mm socket
- Screwdriver, slot type
- Drill with 3/8" bit
- Center punch
- Mechanic's hook
- Hammer
- Star-fangled nut setter

#### Rebuild kit (PN 416476)

- Compression bolt (81 mm with spring)
- Star-fangled nut, 1<sup>1/8</sup>"
- Red rubber plug
- Lower steerer cap, threaded and with threadlocker



Figure 1. SPA suspension fork, noted by rubber boot above fork crown.



## Disassembly procedure

### 1. Remove the fork from the bicycle.

The following steps #3 through #5 are for Aheadset, or threadless, headset systems. For forks using a quill-type stem and threaded headset, go to Step #6.

### 2. With the drill, remove the silver aluminum center of the star-fangled nut (Figure 2a and Figure 2b).

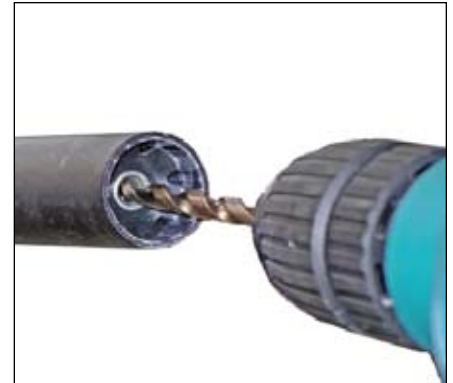


Figure 2a. Remove center of star-fangled nut



Figure 2b. Center removed

### 3. With the punch and hammer, hit the side of the star-fangled nut to tip it sideways in the steerer (Figure 3).



Figure 3. Tip star-fangled nut with punch

### 4. With the mechanic's hook, pull the pieces of the star-fangled nut out from the steerer (Figure 4).



Figure 4. Pull out the star-fangled nut



**5. With the ratchet, extender, and 10 mm socket, remove the nut from inside the steerer (Figure 5).**

Keep the nut clean and set it to the side. You will reinstall it later.



Figure 5. Remove the 10mm nut

**6. Remove the rubber plug from the bottom of the fork crown (Figure 6).**

The hole under the plug accepts a 6 mm allen wrench.



Figure 6. Remove the plug

**7. With the ratchet and a 6 mm allen wrench, remove the lower steerer cap (Figure 7).**

The lower steerer cap has thread-locker on it, so use care as you remove it.



Figure 7. Remove the threaded cap

**8. Lift the spring out of the fork (Figure 8).**



Figure 8. Remove spring



9. With the ratchet, extender, and 6 mm allen, remove the compression bolt (Figure 9).



Figure 9. Remove compression bolt

## Assembly procedure

**1. From the bottom of the steerer, install the new compression bolt (Figure 10).**

The new bolt should have thread-locking compound on the threads. If it does not, apply a drop of Loctite 242. Note: The new bolt might be a different color than shown in the photograph, but will have the coil spring.

Tighten until snug; do not over-tighten. There should be 4-5 mm of threads protruding inside the steerer.

**2. From the top of the steerer, use the ratchet, extender, and 10 mm socket to install the 10 mm nut.**

Tighten the nut securely. There should be one thread (approximately 0.75 -1.0 mm) of the compression bolt showing on top of the nylock insert.

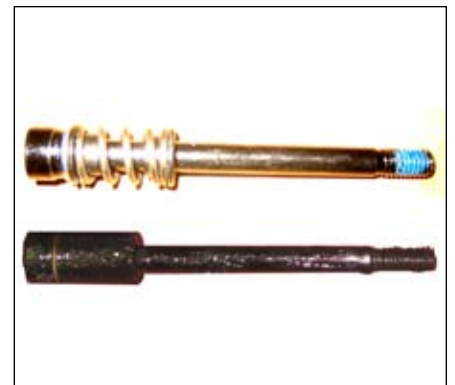


Figure 10. New compression bolt (top) and old compression bolt (bottom)



### 3. Install the spring (Figure 11).

The tube section goes into the fork first, followed by the coil spring.



Figure 11. Install spring

### 4. Install the new lower steerer cap (Figure 12).

Tighten to 50-60 Lb•in (6-7 Nm).



Figure 12. Install lower steerer cap

### 5. Install the red rubber plug (Figure 13).



Figure 13. Install red plug

### 6. Install the new star-fangled nut.

### 7. Check the assembly:

Check that all parts have been installed and there are no extra parts.

Check that the fork functions; turn the fork over and compress it several times.

### 8. Reinstall the fork in the bicycle.