



## Groove 200 damper rebuild

### **Tools and parts needed:**

24mm wrench  
25mm wrench  
19mm wrench  
9mm wrench  
6mm hex wrench  
Soft jaws (for in vice)  
Shaft clamp

Damper shaft seal WB-97-1409  
Compression and rebound needle o-ring WB-97-1418x2  
Floating piston and seal head o-ring WB-P3021 x 2

### **Disassembly of the damper side leg assembly (RH)**

- 1.) Unscrew the top cap from the outer leg and slide the outer leg down.
  - 2.) Unscrew the top cap counterclockwise from the shaft, using a 9mm and 25mm wrench.
  - 4.) Remove the bottom out bumper, spacer, and bottom out spring. Set aside, and remove the outer leg.
  - 5.) Place the axle clamp into a vise with soft jaws or some type of protection that will not harm the finish.
  - 6.) Remove the Dust cap and depress the Schrader valve to depressurize the system.
  - 7.) Unscrew the seal head counterclockwise with a 19mm wrench
  - 8.) Remove the seal head and damper shaft as one assembly.
  - 9.) Unscrew the reservoir air cap counterclockwise with a 24mm wrench and set it aside.
  - 10.) Remove the leg and axle clamp from the vise and invert it over the drain pan to release the damper fluid. While the leg is in this position push the piston upwards with a blunt tool such as a socket extension to drain any remaining oil out of the reservoir.
  - 11.) Use a 1/16 pin punch to remove pin that retains the compression screw. Remove the compression screw.
  - 12.) Install in a vise with soft jaws. Reinstall seal head with shaft into the inner leg. Using a blowgun through the compression adjuster hole will remove the floating piston through the top of the canister. Cover the top with your hand to prevent shooting the piston out.
  - 13.) Remove the shaft assembly and inspect for damage or wear.
- If you notice and wear or damage to the shim stack or piston, please refer to the Damper Shaft Subassembly Instructions.

### **Rebuilding the damper shaft subassembly**

- 1.) Thoroughly clean all the parts in a mild solvent.
- 2.) Inspect for obvious signs of damage. If any of the parts that have seals running on them show signs of damage they should be replaced.

- 3.) Inspect the rebound shim, it should seat down flat against the piston, if not replace it. This is a good time to make any shim changes if you need faster or slower rebound.
- 4.) Inspect the check valve, it should slide smoothly up and down on its guide, if not it may be possible to improve the action by sanding the guide slightly with a very fine wet/dry paper (1000 grit or finer).
- 5.) Inspect the check valve spring for damage and wear. The spring should snap the compression shim against the damper piston. Replace the spring if there is any damage or wear.
- 6.) If part replacement or shim change is needed, the piston assembly can be disassembled with a 6mm hex wrench. Clamp the damper shaft in the shaft clamp and unthread the bolt counter clockwise.
- 7.) Check the shaft condition including the internal thread for the needle. It should be free of damage.
- 8.) When you replace the piston bolt, lock it in place with thread lock and torque it to 85 in lb (9.6 Nm) Note, only use a small amount of thread lock as excess can harden and disrupt the flow of oil.
- 9.) After reinstalling the piston on the shaft, check fit the piston ring in the inner leg for smooth action. Install the piston ring on the piston, lightly grease and insert into the leg. Stroke the shaft up and down and if everything is OK. You may feel a slight resistance but it should move freely and smoothly.

### **Damper installation**

- 1) Grease and replace the compression screw o-ring, then install the compression screw. When installing the screw, turn counter clockwise until it clicks and then turn clockwise. Install to 4 turns out from bottom.
- 2) Fill canister with 5wt fork oil. Repeat filling canister until the oil level is at the top.
- 3) Replace the floating piston o-ring. Grease piston and o-ring with suspension lube. Install piston with the hollow cavity facing up. Push the piston to the bottom of the canister.
- 4) Fill the stanchion to the top with fork oil.
- 5) Remove the seal head and shaft from damper rod.
- 6) Replace the shaft seal in the seal head. Grease the seal where the shaft will run.
- 7) Grease the threads on the damper shaft, then slide the seal head onto the shaft.
- 7) Replace the needle o-ring and re-install the rebound needle.
- 9) Before installing the damper assembly, measure and set the seal head 220mm from the top of the damper rod. Install the damper shaft with the seal head into the leg. The seal head has a small breather hole in it. Cover it with your hand so oil does not squirt on you.
- 10) Tighten the seal head with a 19mm wrench.
- 11) Install the air cap in the canister. Fill to 80psi, the damper rod will extend some as you air the canister.
- 12) Install outer leg after lubricating the bushing with suspension grease. Do not pour oil into the leg!
- 13) Install the bottom out spring, spacer and orange bumper on the rod. Be sure to slide the bottom out spring down on to the seal head.
- 14) Install cap with the spacer in it. Turn rebound in so it does not bind in cap while installing.

15) Install cap in the leg. Push down on the fork to check for any “dead” spots from air pockets. If there is an air pocket you will have to do the process over. To check compression, screw the adjuster in to the bottom. The leg should “lock-out.” Back screw out to 1 ½ turns out. Do not pull the leg to full extension, this could create a vacuum in the oil and suck air into the system.

### **Rebuilding the outer legs**

Wiper and oil seals are recommended WB-97-1351 x 2, WB-P3060 x 2

- 1.) With the outer legs removed, thoroughly clean all the parts in a mild solvent.
- 2.) Check the condition of the wiper seal and the internal oil seal for cracks, abrasion and/or obvious signs of wear. Note: replacing the wiper seals is always recommended, it helps to keep dirt out especially when riding in harsh conditions.
- 3.) If you decide to replace the seals, they can be removed with a spoon style tire iron or something similar. There is a retaining ring between the wiper and oil seal.
- 4.) Reinstall using a large socket as a driver to install them squarely into position. Note: jamming the seals in at an angle can crush the steel case and the seal will no longer seal correctly and/or not stay in place.
- 4.) Bushings are replaceable but a number of special tools are required. WB recommends that this task be carried out by an Authorized Service Center or qualified mechanic.