Damper with Bladder Removal and Install

Tools
3mm hex wrench
1.5mm hex wrench
24mm wrench
Snap ring plyers
Small flat blade screwdriver
Damper install tool 97-727

NOTE: If unfamiliar with MRP forks, please refer to 50-100hr service instructions for removing the lowers and damper service instructions for compression removal and oil draining.

With all of the oil drained out of the damper stanchion, you will want to insert the damper tool into the inner damper tube so that it rests against the top of the tube. Take your 3mm hex wrench and tighten the center screw of the damper tool until you feel it come to a stop or get firm. Next use your 8mm hex wrench to unthread that damper tube counterclockwise out of the stanchion with the damper tool.

Once the threads are disengaged, pull the damper up so that at least 20mm of the damper tube is exposed. Remove the damper flange, depending on the age you may have tree set screws or a lock ring on the flange. For the set screws, use a 1.5mm hex wrench and loosen all three screws until the flange can be unthreaded counterclockwise off of the damper tube. For the jam nut, hold the damper tool in place with a 8mm hex wrench and with a 24mm open end wrench unthread counterclockwise the jam nut from the damper tube. Then unthread the damper flange from the damper tube and set aside.

Turn the fork upside down and with a flat blade screwdriver or snap ring pliers, remove the snap ring from the groove at the bottom of the stanchion and set aside. With the snap ring removed grab the damper shaft and pull the damper unit out through the bottom of the stanchion.

There will be a gray bladder spacer that is loose on the shaft, clean and inspect it for any damage and set aside. Next inspect the bladder for any damage to the bladder material and inspect that the material is still securely attached to both seal heads on either end. If there is any damage please contact MRP about possible bladder replacement.

Next inspect the white flow bands at the top and bottom of the damper tube for any damage or debris that may affect the performance of the damper. Replace and clean as needed.

To remove the damper shaft and the rebound piston, first remove the e-clip from the upper flow band then push the protruding peg into the damper tube. With your pinky finger inserted into the damper tube, gently pull the flow ban out of the damper tube and set aside.

Next push the damper rod up and out of the top of the damper tube and inspect the rebound piston for any wear and replace the piston wear band if needed, then set aside. Inspect the shaft seals on the ID of the bladder seal head and replace as needed.

Lightly grease the seals on the ID of the bladder seal head and re insert the damper shaft through the top of the damper tube. Align the shaft with the bladder seal head and gently push the shaft through the seal head. When pushing the rebound piston into the damper tube, use gentle force to get the piston band past the flow band groove.

Install the upper flow band by aligning the peg on the band with the hole in the damper tube. Then push the band down into the tube with your pinky finger so that the peg goes down first and can easily be aligned and inserted into the hole. Make sure the rest of the band fits snugly into the groove and is not sitting crooked. With a flat blade screw driver install the e-clip on to the flow band peg.

With the damper tube reassembled lightly grease the orings on the OD of the bladder. Then insert the damper assembly into the bottom of the stanchion. The bladder will have some resistance as you insert the damper assembly into the stanchion and some light force may be necessary.

With the damper tube assembly installed in the stanchion you will now want to install the damper flange back onto the OD of the damper tube. If you have the older style with the set screws simply thread the flange on to the tube until the threads bottom out then tighten the three set screws with a 1.5mm hex wrench until they are tight, but not so tight that they deform the damper tube. If you have the lock ring style of damper flange you will want to first install the damper installation and removal tool at the top of the damper tube. Then install the flange and lock ring in the order they came off; STAGE, thread the flange on the damper tube until the threads bottom out then install the lock ring and thread it until it bottoms out on the flange; LOOP SL/TR, thread the lock ring on to the top of the damper tube until the threads bottom out then install the flange and thread it until it bottoms out on the lock ring. Now that the flange and lock ring are installed you will want to use a 8mm hex wrench to hold the damper install tool while you use a 24mm wrench to tighten the lock ring against the damper flange. Tighten the lock ring clockwise on the STAGE and counterclockwise for the LOOP SL/TR, until the ring is tight. Note: The LOOP SL/TR lock ring and flange can be troublesome to tighten without them unthreading from the damper tube. If you are having troubles it is ok to use channel locks to hold the protruding flat lip on the top of the flange while tightening the lock ring.

Now that the lock ring and flange are installed on the damper tube assembly. Thread the damper tube assembly into the stanchion 4-5 revolutions then install the oring that rests on top of the damper flange. Thread the damper tube assembly down until you feel it bottom out then, thread the damper height tool into place. Turn the damper assembly counterclockwise until you feel it becomes firm. Remove the damper height tool and set the tool aside.

With the damper properly installed, proceed with filling and bleeding the damper, refer to damper oil change instructions if unfamiliar with the process.