

PMXTEC

Instructions - Valve Spring Compression Tool Document PD08003B

Method 1

For many bikes, the springs are weak enough that they can be compressed by hand. First try this method and if it is too difficult move on to method 2.

1. With your palm (or a finger) supporting the head of the valve to be removed use your other palm to compress the valve spring using the PMXTEC valve tool. Hold the head upside down over a work bench and allow the retainer clips to fall out (you may need to shake the head a little or poke at the clips to get them to fall free).
2. Disassemble valve (The valves should be reinstalled in the same location so be sure to store in such a way that you remember which one goes where).
3. For installation assemble the valve and prealign the clips (you may have to compress the spring slightly). Now compress the spring with the PMXTEC valve tool and let the clips fall into place. If they don't just fall in, you may need to help them by pushing them in with your finger.
4. Compress and release the spring a few times to make sure everything is seated.

Method 2

Additional Tools Required

1. C-Clamp with an opening large enough to accommodate the cylinder head to be worked on. The swivel pad on the clamp should be 1" in diameter or less so that it will fit in the recessed area of the PMXTEC Valve Tool.

Valve Removal

1. Attach magnet to fixed end of C-Clamp as shown in Figure 1. This will protect your valves, as well as the gasket surface on the cylinder head, from being damaged by the C-clamp.
2. Position the C-Clamp such that the magnet is centered on the valve to be removed and insert the PMXTEC Valve Tool as shown in Figure 2. Apply a slight force with the C-Clamp and verify that the C-Clamp is properly aligned with the Valve.
3. Compress the valve springs by tightening the C-Clamp until the valve spring retainers are loose. If you hold the cylinder head upside down and tap on the valve the retainers may fall out, otherwise remove them with a tool or your fingers.
4. Remove tooling and disassemble the valve (The valves should be reinstalled in the same location so be sure to store in such a way that you remember which one goes where).



Figure 1. Magnet location

Valve Installation

1. Reinstall the valve, spring assembly, C-Clamp with magnet, and the PMXTEC Valve Tool. Again with just a slight force to compress the spring make sure that the everything is aligned properly with the valve (Misalignment or a C-Clamp that is not straight will make the installation process more difficult as the spring will push to one side causing difficulty inserting both retainer clips).
2. Compress the Valve spring enough to insert the retainers. You may have to gently push on the PMXTEC Valve Tool from one side get both retainers in (due to misalignment mentioned above).
3. Insert the retainers and remove the C-Clamp and PMXTEC Valve Tool.
4. Tap on the back of the valve spring several times with a plastic hammer to seat the valves and retainers.



Figure 2. Proper Valve Tool positioning