

Valve Springs

Removal

1. Remove the rocker arm shaft assembly from the cylinder head being serviced. For additional information, refer to [Rocker Arm](#) in this section.
2. Remove the lower spark plug for the cylinder being serviced. For additional information, refer to [Section 303-07D](#).
3. Rotate the crankshaft until the piston for the valve being serviced is at the top of its stroke.
4. Use compressed air in the cylinder being serviced to hold both valves in position.
 - Apply a minimum of 965 kPa (140 psi) of compressed air into the cylinder.
5. **NOTICE: If the components are to be reinstalled, they must be installed in the same positions. Mark the components for installation into their original locations. Failure to follow these instructions may result in engine damage.**

NOTE: If air pressure has forced the piston to the bottom of the cylinder, any loss of air pressure will allow the valve to fall into the cylinder. If air pressure must be removed, support the valve prior to removal. If a valve drops into the cylinder, remove the cylinder head. For additional information, refer to [Cylinder Head](#) in this section.

Using a valve spring compressor, compress the valve spring and remove the valve spring retainer keys.

6. Remove the valve spring retainer and the valve spring.
7. Inspect the valve spring. For additional information, refer to [Section 303-00](#).

Installation

1. **NOTICE: If the components are to be reinstalled, they must be installed in the same positions. Failure to follow this instruction may result in engine damage.**

Using a valve spring compressor, install the valve spring, the valve spring retainer and the valve spring retainer keys.

2. Relieve the air pressure from the cylinder.
 3. Install the lower spark plug. For additional information, refer to [Section 303-07D](#).
 4. Install the rocker arm shaft assembly onto the cylinder head being serviced. For additional information, refer to [Rocker Arm](#) in this section.
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