

surfaces of rocker arms and rocker arm balls with "Molykote" or its equivalent.

1. Install push rods. Be sure push rods seat in lifter socket.
2. Install rocker arms, rocker arm balls and rocker arm nuts. Tighten rocker arm nuts until all lash is eliminated.
3. Adjust valves when lifter is on base circle of camshaft lobe as follows:
 - a. Crank engine until mark on torsional damper lines up with center or "O" mark on the timing tab fastened to the crankcase front cover and the engine is in the #1 firing position. This may be determined by placing fingers on the #1 valve as the mark on the damper comes near the "O" mark on the crankcase front cover. If the valves are not moving, the engine is in the #1 firing position. If the valves move as the mark comes up to the timing tab, the engine is in #6 firing position and should be turned over one more time to reach the #1 position.
 - b. With the engine in the #1 firing position as just determined, the following valves may be adjusted:
 - Exhaust--1, 3, 4, 8
 - Intake--1, 2, 5, 7

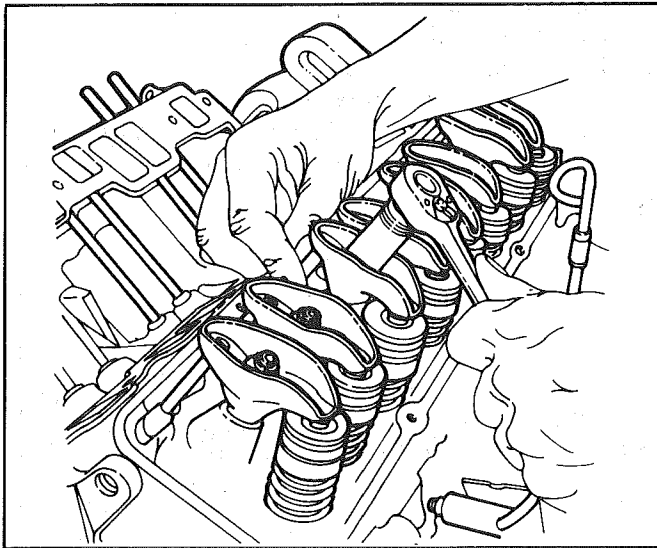


Fig. 6A3-8 Valve Adjustment - Typical

- c. Back out adjusting nut until lash is felt at the push rod then turn in adjusting nut until all lash is removed. This can be determined by rotating push rod while turning adjusting nut (fig. 6A3-8). When play has been removed, turn adjusting nut $1\frac{1}{4}$ in additional turn (to center lifter plunger).
- d. Crank the engine one revolution until the pointer "0" mark and torsional damper mark are again in alignment. This is #6 firing position. With the engine in this position the following valves may be adjusted.
 - Exhaust--2, 5, 6, 7

- Intake--3, 4, 6, 8
4. Install rocker arm covers as previously outlined.
 5. Start engine and adjust carburetor idle speed, if needed.

VALVE STEM OIL SEAL AND/OR VALVE SPRING (6A3-9)

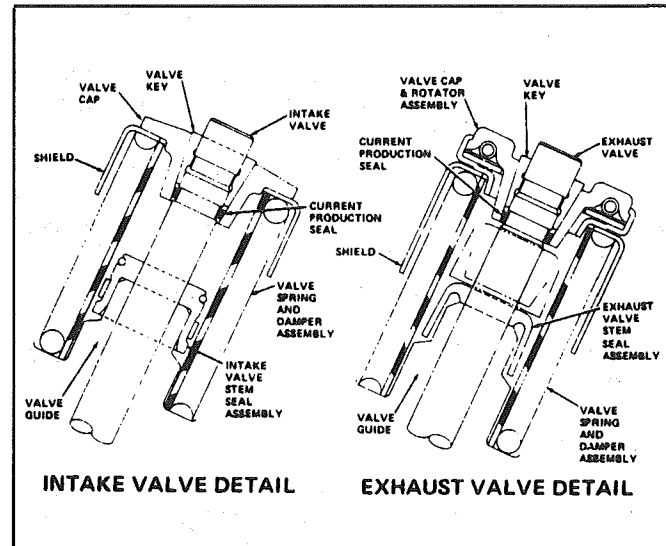


Fig. 6A3-9 Valve Seals

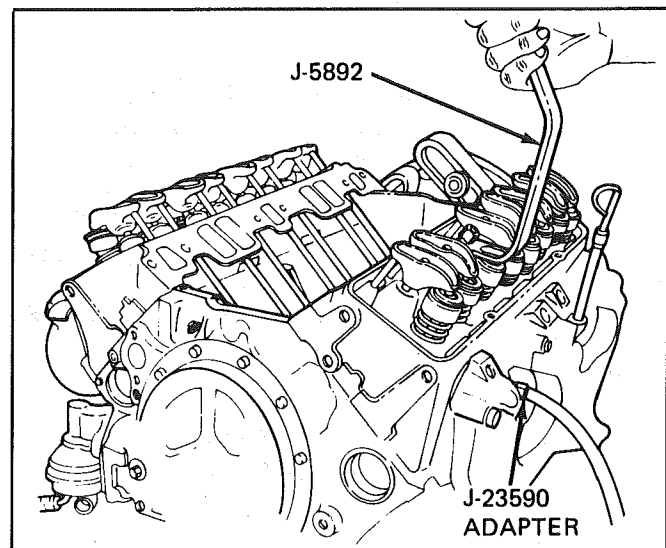


Fig. 6A3-10 Compressing Valve Spring

Removal

1. Remove rocker arm cover as previously outlined.
2. Remove spark plug, rocker arm and push rod on the cylinder(s) to be serviced.
3. Install air line adapter Tool J-23590 to spark plug port and apply compressed air to hold the valves in place.
4. Using Tool J-5892 to compress the valve spring, remove the valve locks, valve cap and valve spring and damper (fig. 6A3-10).
5. Remove the valve stem or head oil seal.