

2003 Jeep Truck TJ (CANADA) L6-4.0L

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STANDARD PROCEDURE - VALVE TIMING

1. Disconnect the spark plug wires and remove the spark plugs.
2. Remove the engine cylinder head cover
3. Remove the capscrews, bridge and pivot assembly, and rocker arms from above the No.1 cylinder.
4. Alternately loosen each capscrew, one turn at a time, to avoid damaging the bridge.
5. Rotate the crankshaft until the No.6 piston is at Top Dead Center (**TDC**) on the compression stroke.
6. Rotate the crankshaft counterclockwise (viewed from the front of the engine) 90°.
7. Install a dial indicator on the end of the No. 1 cylinder intake valve push rod. Use rubber tubing to secure the indicator stem on the push rod.
8. Set the dial indicator pointer at zero.
9. Rotate the crankshaft clockwise (viewed from the front of the engine) until the dial indicator pointer indicates **0.305 mm (0.012 inch)** travel distance (lift).
10. The timing notch index on the vibration damper should be aligned with the TDC mark on the timing degree scale.
11. If the timing notch is more than **13 mm (1/2 inch)** away from the TDC mark in either direction, the valve timing is incorrect.

NOTE: If the valve timing is incorrect, the cause may be a broken camshaft pin. It is not necessary to replace the camshaft because of pin failure. A spring pin is available for service replacement.