1995 ENGINE PERFORMANCE
Volvo - On-Vehicle Adjustments

850

ENGINE COMPRESSION

Warm engine to normal operating temperature. Disconnect single wire from negative terminal of ignition coil(s). Check compression with all spark plugs removed, throttle valve wide open and at normal cranking speed (250-300 RPM).

CAUTION: Failure to disconnect ignition coil negative terminal may cause damage to ignition system control unit(s).

COMPRESSION SPECIFICATIONS TABLE

<table>
<thead>
<tr>
<th>Application</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression Ratio</td>
<td>10.5:1</td>
</tr>
</tbody>
</table>

VALVE CLEARANCE

NOTE: Hydraulic lifters used. No adjustment is required.

IGNITION TIMING

Ignition timing is computer-controlled and is not adjustable.

IGNITION TIMING TABLE (Degrees BTDC @ RPM)

<table>
<thead>
<tr>
<th>Application</th>
<th>(1) Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Turbo</td>
<td>10 @ 800</td>
</tr>
</tbody>
</table>

(1) - Ignition timing is computer-controlled. Not adjustable.

IDLE SPEED & MIXTURE

NOTE: Cold (fast) idle is computer-controlled. Basic idle speed is not adjustable.

IDLE SPEED & CO LEVEL

NOTE: Idle mixture is not adjustable.

IDLE SPEED & CO LEVEL TABLE

<table>
<thead>
<tr>
<th>Application</th>
<th>Idle RPM</th>
<th>(1) CO Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Turbo Cooling Fan On</td>
<td>800</td>
<td>0.6%</td>
</tr>
<tr>
<td>Non-Turbo Cooling Fan Off</td>
<td>825</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

(1) - CO level is measured before catalytic converter.
THROTTLE CONTROLS

THROTTLE SWITCH

Checking
Open throttle slightly and listen for a click. Click indicates throttle switch opens.

Adjusting
Ensure throttle valve is closed. Loosen TPS retaining screws. Turn TPS switch clockwise slightly. Turn TPS switch back again until a click is heard. Tighten retaining screws. Recheck setting. Open throttle slightly, a click should be heard. Click indicates switch is activating.

THROTTLE LINK ROD

1) Mount link rod on throttle housing with "L" mark on rod at housing end and "R" mark on pulley end. Put a .10" (2.5 mm) feeler gauge at pulley stop. See Fig. 1. Turn middle of rod until clearance between lever and adjusting screw is .012" (.30 mm). Ensure rod does not turn and tighten lock nuts.

2) Recheck clearance. Ensure a .020" (.50 mm) feeler gauge cannot be inserted between lever and adjusting screw. Ensure a .004" (.10 mm) feeler gauge can be inserted between lever and adjusting screw. If clearance is not correct, repeat step 1).

Fig. 1: Adjusting Throttle Link Rod
Courtesy of Volvo Cars of North America.

THROTTLE CABLE

Throttle pulley should move freely without sticking. Cable should be taut in idling position, without altering pulley position. Pulley should rest against idle stop. See Fig. 2. Adjust cable as necessary. Press accelerator pedal to floor and ensure pulley reaches full-load stop.
BASIC THROTTLE SETTING

NOTE: If basic throttle setting adjusted, throttle position will change. Therefore, throttle switch must be adjusted whenever basic throttle setting is adjusted. See THROTTLE SWITCH under THROTTLE CONTROLS.

Loosen basic throttle setting adjustment screw lock nut. See Fig. 3. Turn screw until throttle is completely closed. Tighten adjustment screw until it touches throttle lever and then turn an additional 1/2 turn. Tighten lock nut, making sure not to change adjustment. Recheck basic throttle setting.