

## CO/HC INSPECTION

EMOKQ-10

**HINT:**

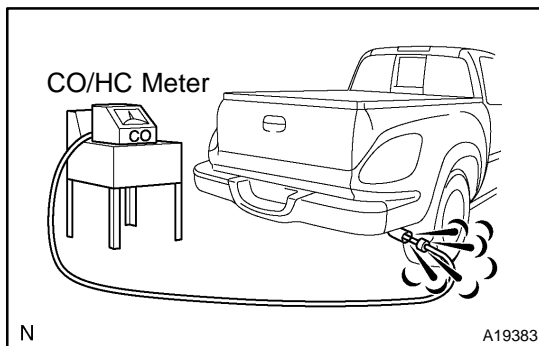
This check is used only to determine whether or not the idle CO/HC complies with regulations.

**1. INITIAL CONDITIONS**

- (a) Engine at normal operating temperature
- (b) Air cleaner installed
- (c) All pipes and hoses of air induction system connected
- (d) All accessories switched OFF
- (e) All vacuum lines properly connected
- (f) SFI system wiring connectors fully plugged
- (g) Correct ignition timing
- (h) Transmission in neutral position
- (i) Tachometer and CO/HC meter calibrated by hand

**2. START ENGINE****3. RACE ENGINE AT 2,500 RPM FOR APPROX. 180 SECONDS****4. INSERT CO/HC METER TESTING PROBE AT LEAST 40 cm (1.3 ft) INTO TAILPIPE DURING IDLING****5. IMMEDIATELY CHECK CO/HC CONCENTRATION AT IDLE AND/OR 2,500 RPM****HINT:**

When performing the 2 mode (2,500 rpm and idle) test, follow the measurement orders prescribed by the applicable local regulations.



If the CO/HC concentration does not comply with regulations, perform troubleshooting in the order given below.

- (1) Check the A/F sensors and heated oxygen sensors operation (See page [DI-84](#) and [DI-90](#)).
- (2) See the table below for possible causes, and then inspect and correct the corresponding causes if necessary.

CO	HC	Problems	Causes
Normal	High	Rough idle	1. Faulty ignitions: <ul style="list-style-type: none"> <li>• Incorrect timing</li> <li>• Fouled, shorted or improperly gapped plugs</li> </ul> 2. Incorrect valve clearance 3. Leaky intake and exhaust valves 4. Leaky cylinders
Low	High	Rough idle (fluctuating HC reading)	1. Vacuum leaks: <ul style="list-style-type: none"> <li>• PCV hose</li> <li>• Intake manifold</li> <li>• Throttle body</li> </ul> 2. Lean mixture causing misfire
High	High	Rough idle (Black smoke from exhaust)	1. Restricted air filter 2. Faulty SFI system: <ul style="list-style-type: none"> <li>• Faulty pressure regulator</li> <li>• Defective ECT sensor</li> <li>• Faulty ECM</li> <li>• Faulty injectors</li> <li>• Faulty throttle position sensor</li> <li>• Faulty MAF meter</li> </ul>