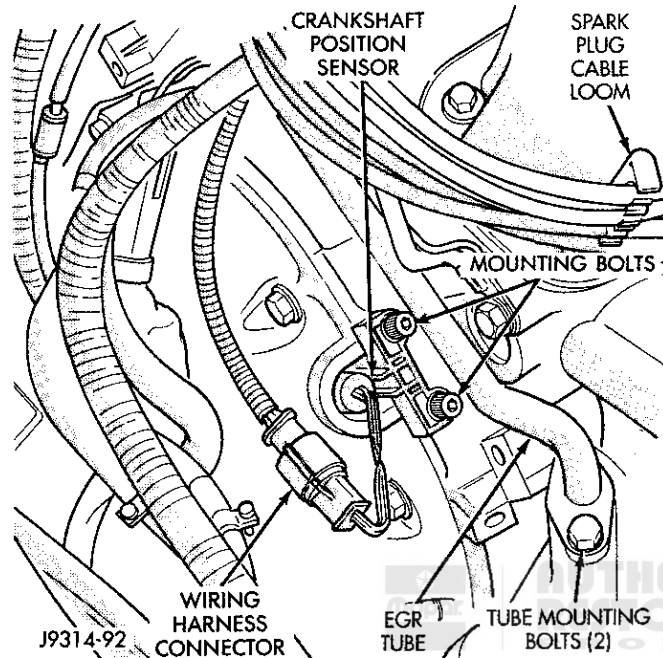


## CRANKSHAFT POSITION SENSOR—3.9L/5.2L ENGINE

### REMOVAL

The sensor is bolted to the top of the cylinder block near the rear of right cylinder head (Fig. 3).



**Fig. 3 Crankshaft Position Sensor—3.9L/5.2L Engine**

(1) Remove the spark plug cable loom and spark plug cables from valve cover mounting stud at rear of right valve cover (Fig. 3). Position spark plug cables to top of valve cover.

(2) Disconnect 2 hoses at Exhaust Gas Recirculation (EGR) valve. Note position of hoses at EGR valve before removal.

(3) Disconnect electrical connector and hoses at electric EGR transducer (EET). Note position of hoses at EET before removal.

(4) Remove 2 EGR valve mounting bolts and remove EGR valve. Discard old EGR gasket.

(5) Disconnect electrical connector at engine oil pressure sending unit.

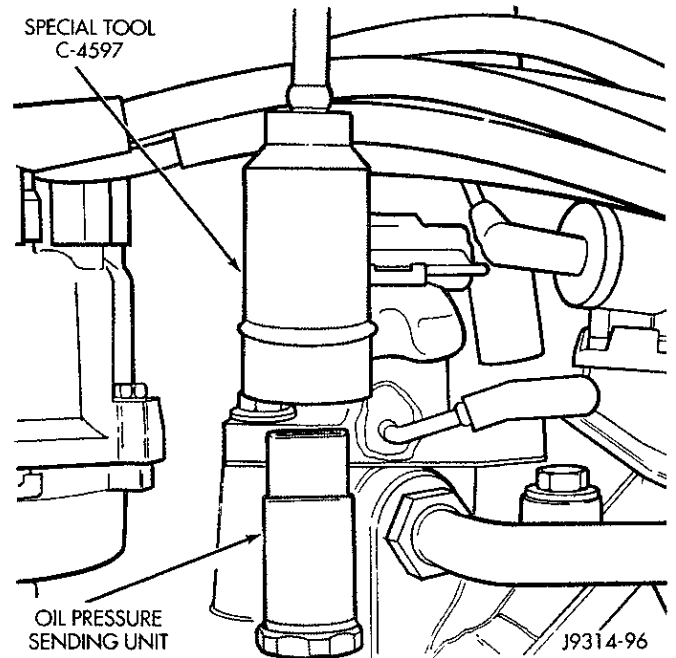
(6) To prevent damage to oil pressure sending unit, a special tool, such as number C-4597 must be used (Fig. 4). Remove sending unit from engine.

(7) Loosen EGR tube mounting nut at intake manifold.

(8) Remove 2 EGR tube mounting bolts at exhaust manifold (Fig. 3) and remove EGR tube. Discard old gasket at exhaust manifold.

(9) Disconnect crankshaft position sensor pigtail harness from main wiring harness.

(10) Remove 2 sensor (recessed hex head) mounting bolts (Fig. 3) and remove sensor.



**Fig. 4 Oil Pressure Sending Unit—Removal/Installation**

### INSTALLATION

(1) Position crankshaft position sensor to engine and install mounting bolts. Tighten bolts to 8 N•m (70 in. lbs.) torque.

(2) Connect main harness electrical connector to sensor.

(3) Clean the EGR tube and exhaust manifold (at EGR tube mounting point) of any old gasket material.

(4) Install a new gasket to exhaust manifold end of EGR tube and install EGR tube to both manifolds. Tighten mounting nut at intake manifold. Tighten 2 mounting bolts at exhaust manifold to 23 N•m (204 in. lbs.) torque.

(5) Coat the threads of the oil pressure sending unit with thread sealant. Do not allow any of the thread sealant to get into the sending unit opening, or the opening at the engine. Install sending unit to engine and tighten to 14 N•m (130 in. lbs.) torque. Install electrical connector to sending unit.

(6) Clean the intake manifold and EGR valve of any old gasket material.

(7) Install a new EGR valve gasket at intake manifold.

(8) Install EGR valve to intake manifold. Tighten 2 bolts to 23 N•m (200 in. lbs.) torque.

(9) Position EET and install its electrical connector. Connect hoses between EGR valve and EET. Connect hose between main vacuum harness and EET.

(10) Install spark plug cable loom and spark plug cables to valve cover mounting stud.