

# ENGINE REMOVAL - 6-CYL

## 1988 Jeep Cherokee

1988 ENGINES

Jeep - Engine Removal - 6-Cylinder

Cherokee, Comanche, Wagoneer, Wrangler

### 6-CYLINDER ENGINES

#### 4.0L

1) Scribe hinge locations, remove engine compartment light (if equipped) and remove hood. Disconnect battery cables and remove battery. Drain cooling system.

2) Disconnect wire connectors from alternator, ignition coil and distributor. Disconnect oil pressure sender wire, starter wires and fuel injector wiring harness (if equipped). Detach 2 fuel pipe quick connect couplings at left inner fender panel. Disconnect engine ground strap and remove air cleaner.

3) Disconnect the vacuum purge hose at fuel vapor canister tee. Disconnect wire from idle speed actuator and oxygen sensor. Detach throttle cable from bracket and disconnect throttle valve rod at bellcrank. Remove upper and lower radiator hoses.

4) On automatic transmission models, disconnect the transmission fluid cooler tubing. On all models, remove fan shroud and radiator. Remove fan and spacer or Tempatrol fan assembly. Hold fan pulley to water pump flange using 5/16" x 1/2" SAE capscrew while crankshaft is rotated.

5) Disconnect cruise control cable (if equipped). Disconnect wires from starter motor solenoid and disconnect CEC system harness. Remove power brake vacuum check valve from booster (if equipped).

6) Disconnect power steering hoses from steering gear (if equipped). Drain power steering pump reservoir and plug end of hoses. Cap all fittings on steering gear and hoses. Raise and support vehicle. Remove starter. Remove flywheel housing access cover.

7) Remove upper and loosen lower bellhousing-to-engine bolts. Attach lifting equipment to engine. Raise engine off front mounts. Place support under bellhousing. Remove remaining bellhousing-to-engine bolts. Lift engine out of engine compartment.

#### 4.2L

1) Remove battery and drain cooling system. Remove air cleaner and engine compartment light from hood. Scribe hinge location and remove hood. Disconnect and plug front fuel line at pump and fuel return line at frame.

2) Disconnect heater hoses at heater. Label and disconnect all wiring, lines, linkage and hoses at engine. Remove vacuum switch assembly bracket from cylinder head cover. Remove both radiator hoses and automatic transmission oil lines (if equipped) at radiator. Remove radiator and shroud.

3) Remove fan and spacer. Use 5/16" x 1/2" SAE bolt to hold fan pulley to water pump flange. Remove starter and disconnect engine ground strap. Remove engine mount-to-bracket nuts. Disconnect exhaust pipe at manifold.

4) Discharge A/C system (if equipped). Disconnect and plug hose or port openings at compressor. Disconnect hoses at power steering gear and drain reservoir. Remove power brake vacuum check valve. Remove bracket bolt for automatic transmission filler tube (if equipped).

5) Lift and support vehicle. On models with automatic

transmission, remove converter housing cover. Index mark converter and driven plate for reassembly. Remove driven plate-to-converter bolts, rotating crankshaft to access each bolt. Remove oil pan bolts holding automatic transmission oil lines. On Wrangler models, remove exhaust pipe support brace at converter housing.

6) On manual transmission models, remove flywheel housing cover. Remove inner support bolts for clutch release arm. Disconnect springs and remove clutch release arm. Remove outer bracket retainer for release lever rod. On all models, remove upper and loosen lower bellhousing bolts.

7) Lower vehicle. Support transmission. If A/C equipped, remove idler pulley and mounting bracket. Attach lifting equipment to engine. Raise engine off front mounts and support transmission. Remove lower bellhousing bolts. Lift engine from compartment while pulling forward.

## TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

| Application                                | Ft. Lbs. (N.m) |
|--|----------------|
| Automatic Transmission-to-Block .....      | 28 (38)        |
| Clutch Housing-to-Block                    |                |
| Top .....                                  | 27 (37)        |
| Bottom .....                               | 43 (58)        |
| Drive Plate-to-Converter .....             | 22 (30)        |
| Drive Plate/Flywheel-to-Crankshaft .....   | 105 (143)      |
| Front Support Bracket-to-Block .....       | 35 (47)        |
| Front Support Cushion-to-Bracket .....     | 33 (45)        |
| Front Support Cushion-to-Crossmember ..... | 37 (50)        |
| Rear Support Bracket-to-Transmission ..... | 33 (45)        |
| Rear Support Cushion-to-Bracket .....      | 30 (41)        |
| Starter Motor-to-Converter Housing .....   | 18 (24)        |