

Engine Removal

JEEP

6 CYLINDER ENGINES

NOTE — Engine is removed without transmission.

ALL MODELS

- 1) Drain cooling system. On all models (except CJ), remove hood. Mark hinge location for installation alignment. Remove air cleaner. Disconnect and plug fuel line at fuel pump. Disconnect fuel return line at frame. On CJ models, disconnect heater hoses at front of engine. On all others, disconnect at heater.
- 2) Disconnect accelerator cable at carburetor. Disconnect all electrical connections at engine and alternator. Disconnect all vacuum lines at engine. Identify for reassembly if necessary. On all models except CJ, battery must be removed. Remove fan shroud bolts and lay shroud back over motor.
- 3) Remove radiator, fan and shroud. Remove starter. Remove motor mount to frame nuts. Disconnect exhaust pipe at manifold. If equipped with manual transmission, remove clutch housing bolts, clutch linkage and shield.
- 4) If equipped with automatic transmission, remove transmission cover and mark position of converter on flex plate. Remove converter bolts. Remove bolts securing transmission converter housing to engine. Disconnect oil cooler lines from transmission oil pan.
- 5) On all models, support transmission with a floor jack. If equipped with power steering, disconnect hoses at steering gear and tie up out of way to prevent leakage. If equipped with air conditioning, disconnect lines at compressor after seating service valves and bleeding lines. Attach a sling to engine and remove from vehicle.

V8 ENGINES

NOTE — Engine is removed without transmission.

ALL MODELS

- 1) Mark hinge positions on hood and remove hood on all models except "CJ". Remove air cleaner and drain cooling system. Disconnect radiator hoses and transmission oil cooler lines. **NOTE** — If equipped with radiator shroud, separate shroud from radiator. Remove radiator and fan.
- 2) Drain fluid from power steering pump reservoir and disconnect hoses. If equipped with air conditioning, turn both service valves clockwise to front seated position and bleed

refrigerant charge by slowly loosening service valve fittings. Disconnect condenser and evaporator lines from compressor and receiver outlet at disconnect coupling. Remove condenser and receiver assembly.

- 3) Remove Cruise Command vacuum servo bellows and mounting bracket as an assembly. Remove battery on all models except "CJ". Disconnect all wires, lines, linkage and hoses connected to engine. On automatic transmissions, disconnect filler tube bracket from right cylinder head, fuel return line at fuel filter, and fuel bowl pressure vent line at carburetor. Use suitable lifting device to support engine and remove front support to frame bolts.
- 4) Remove left front support and bracket from engine on "CJ" models. On "CJ" models with manual transmission, remove transfer case shift lever boot, floor mat, and transmission access cover. On all models remove upper bolts securing transmission to engine adapter plate or clutch housing to engine. Disconnect exhaust pipe at manifold and support bracket, then remove starter.
- 5) Support transmission using a floor jack. On models equipped with automatic transmission, remove adapter plate inspection covers and mark assembled position of converter and flex plate. Remove converter to flex plate bolts and remaining bolts securing transmission.
- 6) On models equipped with manual transmission remove clutch housing lower cover and remaining bolts securing clutch housing to engine. Raise engine and pull forward to remove from vehicle.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Automatic Transmission-to-Block	35
Clutch Housing-to-Block	30
Drive Plate-to-Converter	22
Drive Plate or Flywheel-to-Crankshaft	105
Exhaust Pipe-to-Manifold	20
Front Support Bracker-to-Block	35
Front Support Cushion-to-Crossmember	37
Rear Support Bracket-to-Transmission	33