

Engine Removal

JEEP

NOTE: Procedures are for engine removal without transmission attached.

4-CYLINDER ENGINES

1) Disconnect negative battery cable and drain cooling system. Remove air cleaner. Raise and support vehicle on safety stands. Remove exhaust pipe from exhaust manifold. Remove starter and engine mount nuts.

2) Remove hydraulic clutch slave cylinder and flywheel inspection plate. Remove clutch/converter housing-to-engine bolts. Disconnect wiring, lines, linkage and hoses from engine. Lower vehicle and support transmission with floor jack.

3) Disconnect throttle cable, choke wire and solenoid wire from carburetor. Remove radiator hoses, heater hoses, radiator and shroud. Remove power steering hoses, if equipped. Attach engine sling and remove engine.

6-CYLINDER ENGINES

1) On CJ models, disconnect negative battery cable and drain cooling system. On all other models, open hood and mark hinge location for installation reference. Drain cooling system and remove hood and battery. On all models, remove air cleaner. Disconnect and plug fuel line at pump and fuel return line at frame.

2) Disconnect heater hoses. Disconnect throttle cable and rod (if equipped) at carburetor. Disconnect all wiring, lines, linkage and hoses from engine. Remove radiator, fan and shroud (if equipped). Remove starter and motor mount nuts. Disconnect exhaust pipe at manifold.

3) If equipped with manual transmission, remove clutch housing bolts, clutch linkage and shield. If equipped with automatic transmission, remove transmission cover and mark position of converter on drive plate. Remove converter bolts. Remove bolts securing transmission converter housing to engine. Disconnect oil cooler lines from transmission oil pan.

4) 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 A/C, disconnect lines at compressor after seating service valves and bleeding lines. Attach a sling to engine and remove engine from vehicle.

V8 ENGINES

1) On CJ models, disconnect negative battery cable and drain cooling system. On all other models, open hood and mark hinge location for installation reference. Drain cooling system and remove hood and battery. On all models, remove air cleaner, radiator hoses, heater hoses and oil cooler lines (if equipped).

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. Remove service valves from compressor. Remove Cruise Command vacuum servo bellows and mounting bracket as an assembly, if equipped.

3) Disconnect all wires, lines, linkage and hoses from engine. On automatic transmissions, disconnect filler tube bracket from right cylinder head. Do not remove tube from transmission case. On all models, use lifting device to support engine and remove front support-to-frame bolts. Remove upper drive plate housing screws (automatic transmission) or upper flywheel screws (manual transmission). Disconnect exhaust pipe at manifold and support bracket. Remove starter. Support transmission using a floor jack.

4) On models equipped with automatic transmission, remove adapter plate inspection covers and mark assembled position of converter and drive plate. Remove lower throttle valve and inner manual linkage support. Disconnect throttle valve at lower end of bellcrank. Remove converter-to-drive plate bolts and remaining bolts securing transmission.

5) On models equipped with manual transmission remove clutch housing lower cover and remaining bolts securing clutch housing to engine. On all models, raise engine and pull forward to remove from vehicle.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
4-Cylinder	
Automatic Transmission-to-Block	35 (47)
Clutch Housing-to-Block	54 (73)
Drive Plate-to-Converter	40 (54)
Drive Plate/Flywheel-to-Crankshaft	58 (79)
Front Support Bracket-to-Block	35 (47)
Front Support Cushion-to-Crossmember	37 (50)
Rear Support Bracket-to-Transmission	33 (45)
6-Cylinder	
Automatic Transmission-to-Block	35 (47)
Clutch Housing-to-Block	
Top	27 (37)
Bottom	43 (58)
Drive Plate-to-Converter	22 (30)
Drive Plate/Flywheel-to-Crankshaft	105 (142)
Front Support Bracket-to-Block	
Eagle	45 (61)
All Others	35 (47)
Front Support Cushion-to-Crossmember	37 (50)
Rear Support Bracket-to-Transmission	33 (45)
V8	
Automatic Transmission-to-Block	35 (47)
Clutch Housing-to-Block	30 (41)
Drive Plate-to-Converter	22 (30)
Drive Plate/Flywheel-to-Crankshaft	105 (142)
Front Support Bracket-to-Block	35 (47)
Front Support Bracket-to-Crossmember	37 (50)
Rear Support Bracket-to-Transmission	33 (45)