

MAINTENANCE

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GENERAL

Scheduled and unscheduled maintenance services required to keep Jeep vehicles in good running condition are detailed in this section. Services that must be performed at periodic intervals are listed in the Mechanical Maintenance Schedule. These services are scheduled on the basis of mileage as accumulated on the odometer or a specified time interval—whichever comes first—or they are scheduled by accumulated mileage only. This Maintenance section is therefore subdivided into three parts: (1) Services Scheduled by Mileage or Time Intervals, (2) Services Scheduled by Accumulated Mileage, and (3) Unscheduled Maintenance. Unscheduled maintenance services are those services which need not be performed regularly, but only as the occasion arises.

Mechanical Maintenance Schedule

The services listed in the Schedule are those which experience and testing have indicated are the most likely needed at the mileage or time interval shown. They are shown on the schedule as “R,” “HD,” or “E” services.

“R” services are those maintenance services that are required to keep vehicles in normal service functioning properly.

“HD” services are those services required only if the vehicle is operated in heavy-duty service. Heavy-duty service includes any of the following uses:

- Off-road operation or operation under dusty conditions for over 30% of use.

- Extended idling during normal operation.
- Towing of trailers over 2,000 pounds.
- Short-run usage—that is, most trips average under 6 miles.

Vehicles in heavy-duty use require service at more frequent intervals, as specified by “HD” in the Mechanical Maintenance Schedule. These services must be performed in addition to the services required for vehicles in normal service, as specified by “R”.

“E” services are services required at the interval shown in the schedule to help assure continued compliance with U. S. National Emission Control Standards.

Fuel Requirements

CJ models required unleaded fuel to meet Federal emission standards. The fuel filler tube on these models contains a restrictor which prevents insertion of a nozzle from a gas pump delivering leaded fuel. Reminder labels reading “Unleaded Fuel Only” are affixed to the instrument panel and sheet metal next to the filler tube. Leaded fuel must not be used in CJ models with V-8 engines. These models are equipped with a catalytic converter which—if leaded fuel is used—could be contaminated and require replacement of the alumina catalyst beads.

Cherokee, Wagoneer, and Truck models can use either leaded or unleaded fuel as long as it has an octane rating (research method) of 91 or higher.

SERVICES SCHEDULED BY MILEAGE OR TIME INTERVALS

	Page		Page
At Start of Winter	B-1	Every 25,000 Miles/Months	B-4
Every 5,000 Miles/Months	B-4		

AT START OF WINTER

Perform the following maintenance services at the start of every winter season:

Battery Cables

Inspect the cables for condition and clean the terminals. Coat connections with light mineral grease or petroleum jelly. Replace cables if required.

1976 Jeep Mechanical Maintenance Schedule

Engine Oil and Oil Filter Change required (R) every 5,000 miles or 5 months, whichever comes first. If most vehicle uses involve trips under 6-8 miles, change oil once in between the oil and filter changes. Change Heavy-Duty (HD) every 3,000 miles or 3 months, whichever comes first. Check engine oil level every 500-600 miles.	Engine Coolant Change required (R) at 25,000 miles or 25 months and then at the start of every winter season. Wheel Nuts Tighten to specified torque (R) after first 200 miles.										Tires Tires and tire services are excluded from both the New Vehicle Warranty and the Maintenance Schedule. Tire adjustments are handled directly by the tire manufacturer. Normal maintenance recommendations appear as guides under "Tires".										
SERVICES SCHEDULED by ACCUMULATED MILEAGE																					
HD—If you operate your Jeep vehicle under heavy-duty conditions such as off-road or dusty driving conditions for over 30% of use; extended idling during normal uses; towing heavy trailers (over 2,000 lbs.); or short run uses (most trips under 6-8 miles); more frequent servicing intervals are required. HD service intervals are in addition to others indicated.																					
R —Required for function and durability. E —Required to help assure compliance with U.S. National Emission Control standards.																					
<div>ODOMETER READING</div> <div>000000</div> <div>IN THOUSANDS</div>	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Fluids (including battery)—inspect/correct level Chart 1	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
COMPLETE BODY LUBRICATION AND BRAKE INSPECTION * Chart 2	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	
Front Suspension—inspect/correct caster and toe	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	
Manual Transmission Clutch—inspect/correct adjustment			R			R			R			R			R			R			
Automatic Transmission—adjust linkage			R			R			R			R			R			R			
COMPLETE CHASSIS LUBRICATION (Chart 3)	CJ	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
	Cherokee, Wagoneer, Truck	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	
Shock Absorber Mountings and Bushings—inspect	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	
Spring Bushings—inspect	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	R	HD	HD	
Exhaust System—inspect	R	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	HD	
U.S. EMISSION CONTROL SERVICES CHEROKEE, WAGONEER, TRUCK (Chart 4)	Scheduled routine service	E	E		E	E		E	E		E	E		E	E		E	E		E	
	Complete precision tune-up			E			E			E			E			E			E		
U.S. EMISSION CONTROL SERVICES CJ (Chart 5)	Scheduled routine service			E					E						E					E	
	Complete precision tune-up						E						E					E			
	Idle speed (curb and fast)—check and inspect. Drive belts—inspect condition and tension and correct as required.	E																			

* Immediately after operating in sand, mud, water, etc., inspect the brake assemblies and clean if necessary.

CHART 1 FLUIDS

INSPECT AND CORRECT LEVELS: NORMAL SERVICE Every 5,000 Miles* HEAVY-DUTY SERVICE Every 3,000 Miles* Transmission Transfer Case—Model 20 only** Differentials—Front and Rear Steering Gear Housing Power Steering Reservoir Brake Master Cylinder Engine Oil Level Radiator Coolant Windshield Washer Solvent Battery	DRAIN AND REFILL: At Mileage indicated Transmission Automatic Normal Service 25,000 Heavy Duty Service 10,000 Manual 30,000 Transfer Case—Model 20 only** 30,000 Differentials—Front and Rear 30,000 *Except as otherwise indicated **Quadra-Trac transfer case does not require scheduled lubricant level check or drain and refill
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**CHART 2 COMPLETE BODY LUBRICATION
AND BRAKE INSPECTION**

NORMAL SERVICE : Every 15,000 miles
HEAVY DUTY SERVICE: Every 5,000 miles

Inspection, and correction as needed, of brake linings and other parts
 Hood latch and hinges
 Door latches, lock cylinders and door hinges*
 Tailgate and liftgate hinges and latches*
 Front seal tracks
 Ash tray slides
 Glove box door latch and hinge
 Courtesy light switch buttons*
 Apply silicone lubricant to all door, window, tailgate and liftgate rubber weather seals

*Where applicable

**CHART 4 U. S. EMISSION CONTROL SERVICES
CHEROKEE, WAGONEER, TRUCK MODELS**

A precision electronic diagnosis should be purchased whenever questionable engine performance occurs between the scheduled complete precision tune-ups.

SCHEDULED ROUTINE SERVICES

At 5-10-20-25-35-40-50-65-70-80-85-95-100,000 miles
 Drive belts—inspect condition and tension and correct as required
 Heat Valve (exhaust manifold)—inspect and lubricate

COMPLETE PRECISION TUNE-UP

At 15-30-45-60-75-90,000 miles
 Air-Guard System Hoses—inspect and correct as required
 Carburetor Air Cleaner Element—replace paper cartridge, clean polyurethane element, unless plugged or damaged, then replace
 Choke Linkage—inspect for free movement (correct as required)
 Coil and Spark Plug Wires—inspect and replace as required
 Distributor Advance Mechanisms—check and correct as required
 Distributor Cap and Rotor—inspect and replace as required
 Drive Belts—inspect condition and tension and correct as required
 Engine Oil Filler Cap (filter type)—clean
 Exhaust Gas Recirculation Discharge Port (six-cylinder)—inspect and clean as required*
 Exhaust Gas Recirculation Valve—inspect and clean*
 Fuel Filter—replace
 Fuel System: Cap, Tank, Lines, Check Valves and Connections—inspect for integrity and correct as required
 Fuel Vapor Inlet Filter at Charcoal Canister—replace
 Heat Valve (exhaust manifold)—inspect and lubricate
 Idle Speed and Mixture—check and reset as required
 Ignition Timing—check and set as required
 PCV Filter (six cylinder)—clean
 PCV Hoses—inspect and replace as required
 PCV Valve—replace
 Spark Plugs—replace
 TAC System—inspect and correct as required
 Vacuum Fittings, Hoses and Connections—inspect and correct as required

*Service every 15,000 miles if leaded fuel is used.
 Service every 30,000 miles if lead-free fuel is used.

CHART 3 COMPLETE CHASSIS LUBRICATION

CJ Models **Cherokee, Wagoneer, Truck**

NORMAL SERVICE : Every 5,000 miles **Every 15,000 miles**
HEAVY-DUTY SERVICE : Every 3,000 miles **Every 5,000 miles**

Inspection and or lubrication of . . .

Steering linkage (with replacement of suspension and steering system seals and components as necessary)
 Steering shaft U-joint (Cherokee, Wagoneer, Truck)
 Clutch Linkage—CJ Models

Lubricate every 25,000 miles :

Front wheel bearings—All Models
 Transfer case shift linkage—CJ Models
 Transfer case shift control lever assembly—Cherokee, Wagoneer & Truck

NORMAL SERVICE : Every 10,000 miles
HEAVY-DUTY SERVICE : Every 5,000 miles
 Front and Rear Propeller Shafts—All Models

NOTE: Rear wheel bearings do not require periodic or scheduled lubrication; only at time of overhaul or other service.

**CHART 5 U. S. EMISSION CONTROL SERVICES
CJ MODELS**

A precision electronic diagnosis should be purchased whenever questionable engine performance occurs between the scheduled complete precision tune-ups.

SCHEDULED ROUTINE SERVICES At 15-45-75-100,000 miles
 Drive belts—inspect condition and tension and correct as required.
 Fuel Filter—replace.

**COMPLETE PRECISION TUNE-UP AT
30-60-90,000 MILES**

Air-Guard System Hoses—inspect and correct as required
 Carburetor Air Cleaner Element—replace
 Choke Linkage—inspect for free movement (correct as required)
 Coil and Spark Plug Wires—inspect and replace as required
 Distributor Advance Mechanisms—check and correct as required
 Distributor Cap and Rotor—inspect and replace as required
 Drive Belts—inspect condition and tension and correct as required*
 Engine Oil Filler Cap (filter type)—clean
 Fuel Filter—replace
 Fuel System: Cap Tank, Lines, Check Valves and Connections—inspect for integrity and correct as required
 Fuel Vapor Inlet Filter at Charcoal Canister—replace
 Heat Valve (exhaust manifold)—inspect and lubricate
 Idle Speed (curb and fast) and mixture—check and reset as required
 Ignition Timing—check and set as required
 PCV Filter (six-cylinder)—clean
 PCV Hoses—inspect and replace as required
 PCV Valve—replace
 Spark Plugs—replace
 TAC System Hoses—inspect and correct as required
 Transmission Controlled Spark Systems—inspect and correct as required
 Vacuum Fittings, Hoses and Connections—inspect and correct as required

Engine Coolant

Change engine coolant *after* the first 25,000 miles or 25 months, whichever comes first, and then at the start of every winter season. Refer to Cooling section for draining and refilling procedures.

EVERY 5,000 MILES/MONTHS

Engine Oil Change

Engine oil should be changed after the first 5,000 miles and every 5,000 miles thereafter. As periods for subsequent oil changes are affected by a variety of conditions, no single mileage figure can apply for all types of driving. Five-thousand miles is therefore the maximum amount of miles that should elapse between changes; more frequent changes are beneficial, and for this reason, oil should be changed every 5 months even though 5,000 miles may not have elapsed on the vehicle odometer.

Drain crankcase only after engine has reached normal operating temperature to ensure complete drainage of used oil.

For maximum engine protection under all driving conditions, fill crankcase only with engine oil meeting API Engine Oil Service Classification "SE". These letters must appear on the oil container singly or in combination with other letters. SE engine oils provide protection against oil oxidation, high-temperature engine deposits, rust, and corrosion.

Single viscosity or multi-viscosity oils are equally acceptable. Oil viscosity number, however, should be determined by the lowest anticipated temperature before the next oil change.

Crankcase capacity is 5 quarts for six-cylinder engines, 4 quarts for V-8's. Add 1 quart with filter

Engine Oil Viscosity

Lowest Temperature Anticipated	Recommended Single Viscosity	Recommended Multi-Viscosity
Above +40°F	SAE 30 or 40	SAE 10W-30, 20W-40, or 10W-40
Above 0°F	SAE 20W-20	SAE 10W-30 or 10W-40
Below 0°F	SAE 10W*	SAE 5W-20 or 5W-30

*Sustained high speeds (above 55 mph) should be avoided when using SAE 10W engine oil since oil consumption may be greater under this condition.

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change. Do not fill past FULL mark on engine oil dipstick.

Oil Filter Change

A full-flow oil filter is mounted on the lower front right side on V-8 engines and on the lower center right side of six-cylinder engines.

The throwaway filter unit can be removed from the adapter by using Oil Filter Removal Tool J-22700. To install, turn the replacement unit by hand until the gasket contacts the seat and then tighten an additional half turn.

The oil filter should be changed every 5,000 miles or every 5 months, whichever comes first.

EVERY 25,000 MILES/MONTHS

Engine Coolant

Change the engine coolant at 25,000 miles or 25 months, whichever comes first, and then at the start of every winter season. Refer to Cooling section for draining and refilling procedures.

SERVICES SCHEDULED BY ACCUMULATED MILEAGE

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After First 5,000 Miles	B-5
Every 5,000 Miles	B-5
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Every 15,000 Miles	B-9
Every 25,000 Miles	B-9
Every 30,000 Miles	B-10

AFTER FIRST 200 MILES

Wheel-to-Hub Nuts

After the first 200 miles of operation, tighten the wheel-to-hub nuts to the specified torque value.

Wheel-to-Hub Nuts (Foot-Pounds)

Model	OK Range	Preferred
CJ Models	65 to 90	78
Cherokee, Wagoneer, Truck (except 8000 GVW Truck)	65 to 80	73
Truck 8000 GVW	110 to 125	118

AFTER FIRST 5,000 MILES

Exhaust System Inspection—All Models

Check the exhaust system after 5,000 miles of vehicle operation and inspect for the following conditions. Correct as required.

- Exhaust system leaks, damage, misalignment.
- Grounding against body sheet metal or frame.
- Exhaust manifold heat valve stuck.
- Catalytic converter (CJ models only) "bulged" or damaged by excessive heat.

Emission Control Services—CJ Models

Drive Belts

Check belts driving fan, air pump, alternator, power steering pump, and air conditioning compressor for cracks, fraying, wear, and general condition. Use Tension Gauge J-23600 to check drive belt tension. Compare reading obtained against the tension specified for used belts in the following chart. If installing a new belt, use the initial tension setting shown in the chart.

If drive belt must be replaced or tension must be adjusted, refer to Cooling section for procedure.

Drive Belt Tension (Pounds)

Drive Belt	New Belt*	Used Belt
Air Conditioner	125 to 155	90 to 115
Air Pump (except six-cylinder with power steering).	125 to 155	90 to 115
Air Pump (with power steering — 3/8 inch belt)	65 to 75	60 to 70
Fan/Alternator.	125 to 155	90 to 115
Power Steering Pump	125 to 155	90 to 115

*New belt specifications apply only to replacement belts. Once a belt has been tensioned and run, it is considered a used belt and should be adjusted to used belt specifications.

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Engine Idle Speeds

Check curb and fast idle speeds using equipment known to be accurate. For curb idle speed, refer to Tune-Up Specifications (On Car) chart in the Emission Controls section. For fast idle speed, refer to Carburetor Service Specifications chart in the Fuel—Carburetion section.

EVERY 5,000 MILES

Fluid Level Checks—All Models

Battery

Check electrolyte level and add distilled water, if necessary, to bring level to bottom of ring in filler wells. Check specific gravity with a reliable hydrometer. Coat connections with light mineral grease or petroleum jelly. Refer to Electrical section for detailed maintenance information.

Engine Coolant

Coolant level should be checked when the engine is cold. If coolant should be needed, fill radiator to approximately 1/2 inch to 1 inch below the filler neck when hot or 1-1/2 inch to 2 inches when cold. Add a mixture of equal parts of ethylene glycol antifreeze and pure water. In an emergency, plain water may be used. Check the freeze protection at the earliest opportunity, as the addition of plain water will reduce the antifreeze and corrosion protection afforded by the coolant. Do not overfill, as loss of coolant—due to expansion—will result.

Automatic Transmission

Check the fluid level at each engine oil change. To make an accurate fluid level check:

- (1) Drive vehicle several miles, making frequent starts and stops, to bring transmission up to normal operating temperature.
- (2) Place vehicle on level surface.
- (3) Have engine running at hot idle speed.
- (4) Apply parking brake.
- (5) Move gearshift lever through all gears, leaving it in Park.
- (6) Remove dipstick, located in fill tube at right rear of engine near firewall, and wipe clean.
- (7) Insert dipstick until cap seats.
- (8) Remove dipstick and note reading. The fluid level should be between the ADD and FULL marks. If at or below the ADD mark, add sufficient fluid to raise level to FULL mark.

Use AM Automatic Transmission Fluid, Dexron, or Dexron II or equivalent.

CAUTION: Do not overfill. Overfilling can cause foaming which in turn can lead to overheating, fluid oxidation, or varnish formation. These conditions can cause interference with normal valve, clutch, and servo operation. Foaming can also cause fluid to escape from the transmission vent where it may be mistaken for a leak.

When checking fluid level, also check fluid condition. If fluid smells burned or is full of metal or friction material particles, a complete transmission

overhaul is needed. Examine the fluid closely. If doubtful about its condition, drain out a sample for a doublecheck.

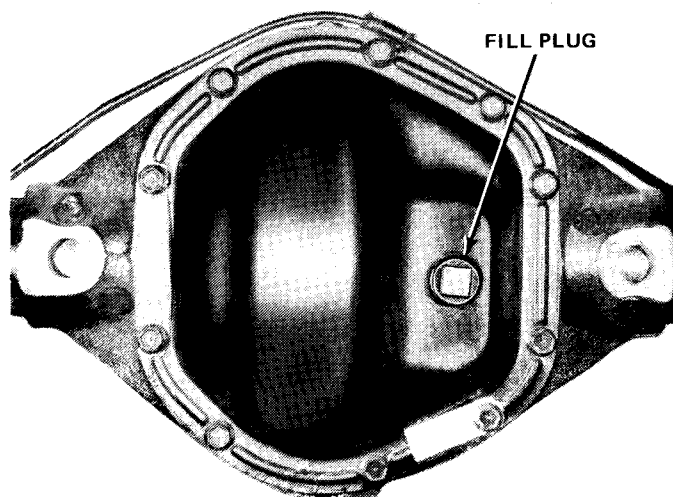
Manual Transmission and Model 20 Transfer Case

Fluid levels in the Model 20 transfer case and manual transmission (T-15A, 150-T, or T-18) must be checked at the same time. Fill plugs for all units are located on the right side of the assembly.

To check lubricant level, remove the transmission and transfer case fill plugs. Lubricant should be level with each fill plug hole. If not, bring up to level with make-up lubricant and replace fill plug. Use SAE 80W Gear Lubricant of API-GL-4 quality.

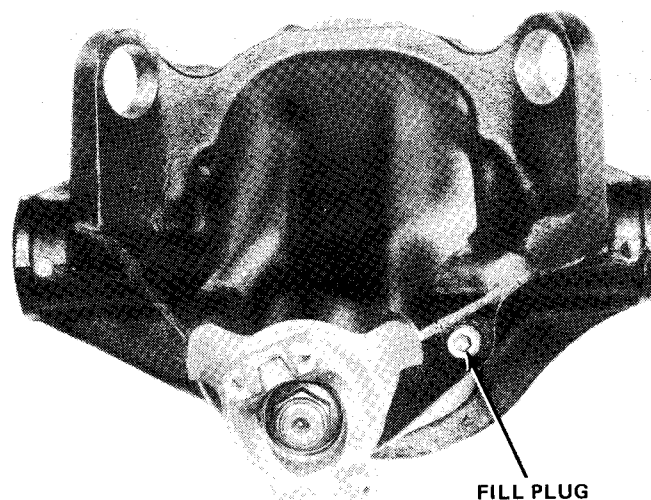
Quadra-Trac Transfer Case and Low Range Reduction Unit

Fluid levels in the Quadra-Trac transfer case and the low range reduction unit (if equipped) must be checked at the same time. Fill plugs are shown in figure B-1. Lubricant should be level with each fill plug hole. If not, bring up to level with a blend of AMC/Jeep Lubricant Concentrate, Jeep Part No. 8123004 (or equivalent), and SAE 30W non-detergent motor oil.



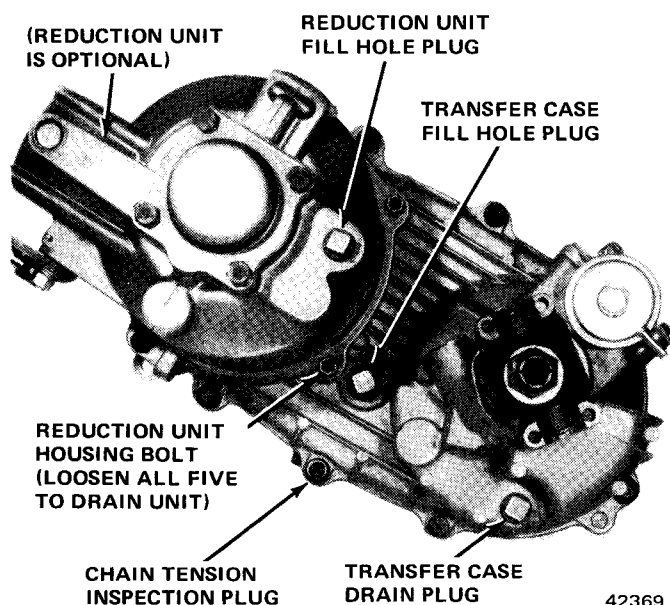
FRONT AXLE — CJ MODELS
FRONT/REAR AXLE — CHEROKEE, WAGONEER, TRUCK

72206



REAR AXLE — CJ MODELS

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Fig. B-1 Quadra-Trac Transfer Case and Low Range Reduction Unit Fill Plugs

Fig. B-2 Axle Fill Plug Locations

Lubricant or equivalent of SAE 80W-90 (API-GL-5) quality. For Trac-Lok axles, use Limited-Slip Gear Lubricant of SAE 80W-90 (API-GL-5) quality.

Manual Steering Gear

Check by removing the side cover bolt opposite the adjuster screw (fig. B-3). Lubricant should be to level of bolt hole. If not, add make-up fluid such as AM All-Purpose Lubricant or Multi-Purpose Chassis Lubricant (Lithium Base).

Axle Differentials—Front and Rear

Check the lube level every 5,000 miles or at each oil change. The lubricant level of all differentials should be at the level of the fill hole (fig. B-2). If not, bring to level by adding lubricant. Use AM Rear Axle

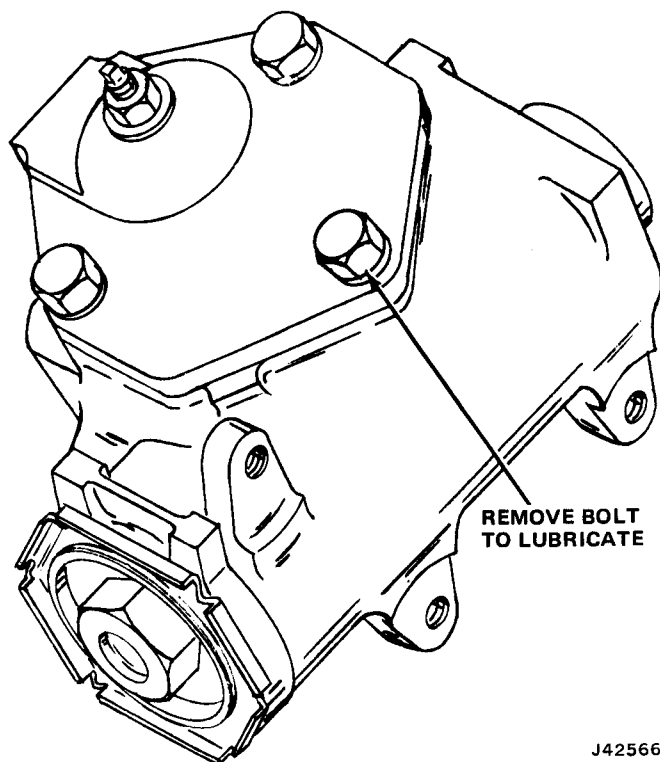


Fig. B-3 Manual Steering Gear Fill Hole Location

Power Steering Gear Pump

Lubricant level can be checked with fluid either hot or cold. If below the FULL HOT or FULL COLD marking on the dipstick attached to the reservoir cap (fig. B-4), add make-up fluid such as AM Automatic Transmission Fluid or equivalent brand labeled Dexron.

Windshield Washer Solution

Replenish windshield washer solution with a quality washer solvent to avoid system freeze-up during cold weather. For warmer weather, use plain water. Do not use anti-freeze or other solutions that can damage the paint.

Chassis Lubrication—CJ Models

Lubricate the following components every 5,000 miles for vehicles in normal service. For vehicles in heavy-duty service, lubricate every 3,000 miles.

Clutch Linkage

Apply AM All-Purpose Lubricant (or equivalent) or multi-purpose chassis lubricant (lithium base) at the clutch bellcrank. There are two lube fittings on the bellcrank.

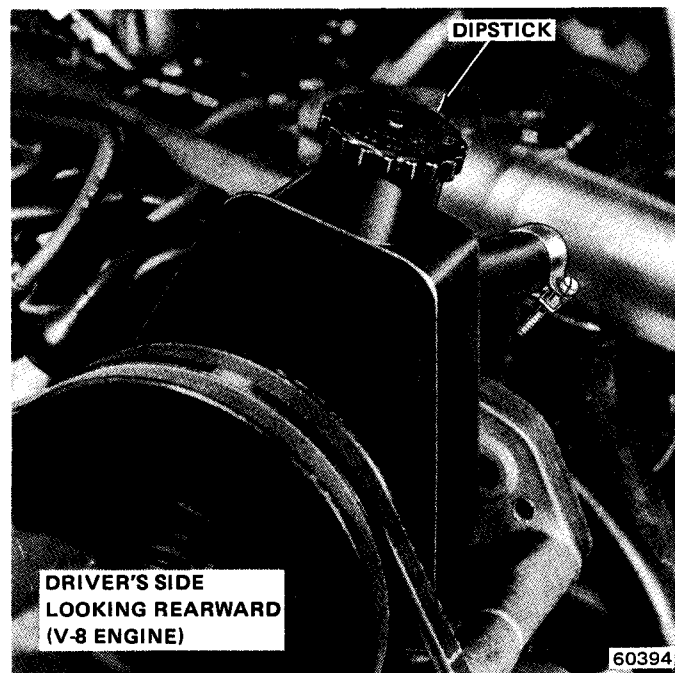


Fig. B-4 Power Steering Gear Pump Dipstick Location

Steering Linkage

Lubricate tie-rod ends and connecting rod ends using AM All-Purpose Lubricant (or equivalent) or multi-purpose chassis lubricant (lithium base).

Emission Control Services—Cherokee-Wagoneer-Truck

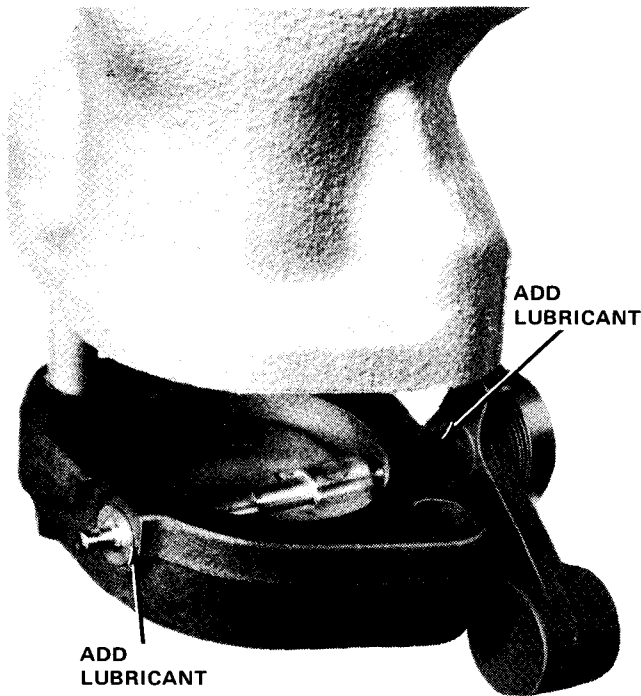
Drive Belts

Check belts driving fan, air pump, alternator, power steering pump, and air conditioning compressor for cracks, fraying, wear, and general condition. Use Tension Gauge J-23600 to check drive belt tension. Compare reading obtained against the tension specified for used belts shown in the following chart. If installing a new belt, use the initial tension setting shown in the chart.

Drive Belt Tension (Pounds)

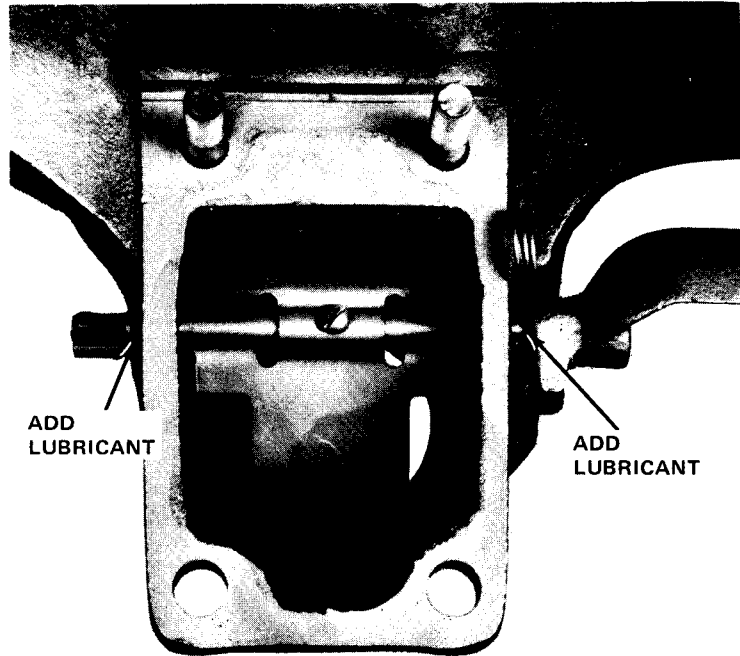
Drive Belt	New Belt*	Used Belt
Air Conditioner	125 to 155	90 to 115
Air Pump (except six-cylinder with power steering).	125 to 155	90 to 115
Air Pump (with power steering — 3/8 inch belt)	65 to 75	60 to 70
Fan/Alternator.	125 to 155	90 to 115
Power Steering Pump	125 to 155	90 to 115

*New belt specifications apply only to replacement belts. Once a belt has been tensioned and run, it is considered a used belt and should be adjusted to used belt specifications.



V-8 ENGINE

41699



SIX-CYLINDER ENGINE

41697

Fig. B-5 Heat Valve Shaft Lubrication Points

Exhaust Manifold Heat Valve

Check for proper operation and lubricate the shaft using AM heat Valve Lubricant, Part No. 8891632, or equivalent.

On V-8 engines the valve is at the end of the right-side exhaust manifold. On six-cylinder engines, the valve is in the lower portion of the exhaust manifold on the left side of the engine.

EVERY 10,000 MILES

Propeller Shafts—All Models

Lubricate the following propeller shaft components every 10,000 miles for vehicles in normal service and every 5,000 miles for vehicles in heavy-duty service. Use AM All-Purpose or Multi-Purpose Chassis Lubricant (lithium base) or equivalent.

Sleeve Yokes (Splines)

Apply grease gun pressure to sleeve yoke grease fitting until lubricant appears at pressure relief hole in expansion plug at sleeve yoke end of spline. At this point, cover pressure relief hole with finger and continue to apply pressure until grease appears at sleeve yoke seal. This will ensure complete lubrication of spline.

Single Cardan Joint

The single cardan joint is “permanently” lubricated. It should not be disassembled in an attempt to lubricate it (seals could be damaged). If diagnosis indicates looseness or severe wear, replace the assembly.

Double Cardan Joint

Lubricate the constant velocity center bearing at the transfer case end of the front propeller shaft as follows:

- (1) Mark propeller shaft and pinion yoke to ensure proper alignment upon assembly.
- (2) Disconnect front universal joint from rear axle. Move front end of shaft to right as far as possible.
- (3) Rotate shaft until lube hole plug in center bearing can be seen.
- (4) Lube joint using an extended point lubrication adapter such as Alemite Adapter No. 6783.
- (5) Align marks on propeller shaft and pinion yoke.
- (6) Connect front universal joint to front axle.

NOTE: Undercoating or rustproofing compounds could cause the propeller shafts to become unbalanced and cause drive train vibrations. Remove any such compounds using the special solvent available from local undercoating shops.

EVERY 15,000 MILES

Perform all the services scheduled to be performed at 5,000-mile intervals in addition to the following maintenance tasks:

Body Lubrication—All Models

Lubricate all models every 15,000 miles for vehicles in normal service and every 5,000 miles for vehicles in heavy-duty service. Refer to Recommended Lubricants chart at end of this section for items to be lubricated and lubricants to use.

Brake Inspection—All Models

Examine brake linings for wear. If vehicle has drum-type brakes, check the self-adjusting mechanism for proper function. Inspect hydraulic system for leaks and condition at each wheel cylinder and at master cylinder. Check condition of all lines, fittings, and hoses. Correct as required. Adjust parking brake using procedure in Brakes section.

Steering and Front Suspension—All Models

Refer to Front Wheel Alignment procedure in Steering section and inspect caster and toe. Correct as required. Camber is preset at the time of manufacture and does not require adjustment. Inspect spring bushings and shock absorber mountings and bushings and correct as required.

Automatic Transmission Linkage Adjustment—All Models

Adjust the linkage every 15,000 miles. The following procedure applies for all vehicles with automatic transmission.

- (1) Place steering column gearshift lever in Neutral (N) position.
- (2) Raise vehicle on hoist.
- (3) Loosen locknut on gearshift rod trunnion just enough to permit movement of gearshift rod in trunnion.
- (4) Place outer range selector lever fully into neutral detent position and tighten locknut at trunnion to 9 foot-pounds torque.
- (5) Lower car and operate steering column gearshift lever in all ranges. Vehicle should start only in Park or Neutral and column gearshift lever should engage properly in all detent positions. Readjust linkage if operation is not satisfactory.

Manual Transmission Clutch Inspection and Adjustment

Inspect clutch by driving vehicle and checking for clutch chatter, grabbing, slippage, and incomplete re-

lease. Correct as required. Use following procedure for adjustment, if required.

- (1) Adjust bellcrank outer support bracket to provide approximately 1/8-inch bellcrank end play.
- (2) Lift clutch pedal up against pedal stop.
- (3) On clutch push rod (pedal-to-bellcrank), adjust lower ball pivot assembly on or off of rod as required to position bellcrank inner lever parallel to front face of clutch housing (slightly forward from vertical).
- (4) Adjust clutch for release rod (bellcrank-to-release fork) to obtain maximum specified clutch pedal free play.

Emission Control Routine Services—CJ Models

Drive Belts

Inspect drive belts for condition and tension as described under "AFTER FIRST 5,000 MILES." Replace or adjust as required.

Fuel Filter

Replace the fuel filter at the carburetor every 15,000 miles or whenever a complete precision tune-up (Chart 5) is performed.

Chassis Lubrication—Cherokee-Wagoneer-Truck

Lubricate the steering linkage and steering shaft universal joint at 15,000-mile intervals using AM All-Purpose Lubricant or Multi-Purpose Lubricant (lithium base) or equivalent.

Complete Precision Tune-Up—Cherokee-Wagoneer-Truck

A complete precision tune-up should be performed on Cherokee, Wagoneer, and Truck models at 15,000-mile intervals and a precision electronic diagnosis purchased whenever questionable engine performance occurs between scheduled precision tune-ups.

Refer to Chart 4 of the 1976 Mechanical Maintenance Schedule for a complete listing of items requiring attention during the tune-up. Refer to Emission Controls section for detailed procedures and specifications. Procedures for air cleaner servicing and fuel filter replacement can be found in the Fuel—Carburetion section.

EVERY 25,000 MILES

Chassis Lubrication

Lubricate the front wheel bearings every 25,000 miles using a high quality wheel bearing lubricant. Clean, inspect, and repack front wheel bearings when they are removed for servicing.

Adjust wheel bearings after lubrication in accordance with procedures in Brakes—Wheels section.

Transfer Case Shift Linkage—CJ Models

Lubricate every 25,000 miles using AM All-Purpose Lubricant or Multi-Purpose Chassis Lubricant (lithium base) or equivalent.

Transfer Case Shift Control Lever — Cherokee-Wagoneer-Truck

Lubricate every 25,000 miles using AM All-Purpose Lubricant or Multi-Purpose Chassis Lubricant (lithium base) or equivalent.

Automatic Transmission Fluid Change

Drain and refill the automatic transmission at 25,000 miles for vehicles in normal service and every 10,000 miles for vehicles in heavy-duty service. Change fluid immediately after vehicle operation, before it cools.

- (1) Remove transmission pan screws, pan, and gasket.
- (2) Remove and discard oil strainer.
- (3) Remove and discard O-ring seal from the pick-up pipe.
- (4) Install new oil strainer.
- (5) Install new O-ring seal on pick-up pipe and install strainer and pipe assembly.
- (6) Clean pan thoroughly and position new gasket on pan. Use petroleum jelly to hold gasket.
- (7) Install pan. Secure with attaching screws and tighten to 10 to 13 foot-pounds torque.
- (8) Pour approximately 5 quarts of Dexron or Dexron II automatic transmission fluid (or equivalent) down filler pipe. Be sure container, spout, funnel, or other items in contact with fluid are clean.
- (9) Start engine—allow to idle a few minutes.
- (10) Place gearshift lever in Park (P) position and apply parking brake.
- (11) With transmission warm, check fluid level. Add fluid, if necessary, to bring level to FULL mark.

EVERY 30,000 MILES

At every 30,000-mile interval, perform all of the services listed under “EVERY 5,000 MILES,” “EVERY 10,000 MILES,” and “EVERY 15,000 MILES” in addition to the following scheduled maintenance.

Manual Transmission and Model 20 Transfer Case Fluid Change

Manual transmission (3- or 4-speed) and Model 20 transfer case lubricating fluid must be changed at the same time. Change every 30,000 miles. Use SAE 80W Gear Lubricant of API-GL-4 quality — see Fluid Capacities chart at the end of this section for quantity. To change fluid:

- (1) Remove fill plugs and drain plugs.
- (2) Allow units to drain completely.
- (3) Replace drain plugs.
- (4) Fill to level of fill holes.
- (5) Replace fill plugs.

Axle Differentials (Front and Rear) Fluid Change

Change every 30,000 miles using AM Rear Axle Lubricant or Limited-Slip Gear Lubricant of SAE 80W-90 (API-GL-5) quality or equivalent. For Trac-Lok differentials, use Jeep Differential Oil, Part Number 8991018 or equivalent. Quantity required is listed in the Fluid Capacities chart at the end of this section by axle model. To change fluid:

- (1) Remove axle differential housing cover.
- (2) Allow lubricant to drain out completely.
- (3) On all differentials (except Trac-Lok), flush the differential with a flushing oil or light engine oil to clean out the housing (do not use water, steam, kerosene, or gasoline for flushing). Trac-Lok differentials may be cleaned only by disassembling the unit and wiping with clean rags. Do not flush the unit.
- (4) Check condition of differential housing cover gasket. Replace if necessary.
- (5) Install gasket and differential housing cover.
- (6) Tighten cover bolts to 15 to 25 foot-pounds torque.
- (7) Remove filler plug (fig. B-2) and add new lubricant to fill-hole level.

Complete Precision Tune-Up—CJ Models

A complete precision tune-up should be performed on CJ models at 30,000-mile intervals and a precision electronic diagnosis purchased whenever questionable engine performance occurs between the scheduled precision tune-ups.

Refer to Chart 5 of the 1976 Mechanical Maintenance Schedule for a complete listing of items requiring attention during the tune-up. Refer to Emission Controls section for detailed procedures and specifications. Procedures for air cleaner servicing and fuel filter replacement can be found in the Fuel—Carburetion section.

UNSCHEDULED MAINTENANCE

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GENERAL

Services detailed in this subsection are not listed in the Mechanical Maintenance Schedule for performance at a specified interval. They are to be performed as the occasion arises. Owners, users, and service mechanics should be alert for indications that service or replacement is needed.

CATALYTIC CONVERTER

The catalytic converter used on all CJ models with V-8 engine and those manufactured for sale in California could become contaminated if leaded gas is used or if the engine or emission controls are not maintained as scheduled. If this occurs, the catalyst—the alumina-coated beads in the converter—must be replaced. Refer to the catalyst replacement procedure in the Emission Control section.

QUADRA-TRAC TRANSFER CASE

Stick-Slip Condition

The Quadra-Trac transfer case does not require periodic or scheduled lubrication. However, should a stick-slip condition occur in the transfer case, a torque wind-up condition results as in a conventional transfer case. Sudden release of the clutch brake cones under this condition results in a constant, pulsating, grunt-like noise that, if it occurs, is evident to the driver at slow or “crawl” speeds—such as when slowly turning a corner, or when maneuvering to park.

NOTE: *Stick-slip can occur after extended high-speed highway driving or driving after the vehicle has been sitting idle for a week or more. This is considered normal, and should be of no concern, as the noise will disappear with continued driving.*

If this condition occurs, a full eight fluid ounces of Concentrate, Jeep Part Number 8123004, or Lubrizol 762 or equivalent should be added (this applies to the Quadra-Trac transfer case with or without the reduction unit). It may be necessary to drain a slight amount of lubricant at the transfer case drain plug

(fig. B-1) to permit addition of the full amount of concentrate through the transfer case fill plug.

If the addition of the concentrate does not correct the stick-slip condition, the unit should be drained, refilled, and then driven in tight circles to distribute lubricant.

CAUTION: *When driving in tight circles, do not turn the wheels to the stop position—keep the wheel about half a turn off the stop position.*

Fluid Change

Without Reduction Unit

Use a lubricant blend consisting of eight ounces of Concentrate, Jeep Part Number 8123004, or Lubrizol 762 and SAE-30 good quality nondetergent motor oil. Requirement is 3.5 pints (2.9 Imperial pints or 1.7 liters). **Detergent and heavy-duty (10W-30) type motor oils are not recommended.**

Remove fill plug and drain plug (fig. B-1) and allow the transfer case to drain completely. Replace drain plug. Install concentrate, then fill to fill-hole level with motor oil, as specified above. Replace fill plug.

With Reduction Unit

Use a lubricant blend of eight ounces of Concentrate, Jeep Part Number 8123004, or Lubrizol 762 and good quality SAE 30 nondetergent motor oil. Requirement is 4.5 pints (3.7 Imperial pints or 2.1 liters).

Remove the fill plugs from the transfer case and reduction unit. Remove the transfer case drain plug. After it has drained *completely*, replace the drain plug.

Loosen the five bolts on the reduction unit housing (no drain plug), so that the unit can be pulled back far enough to permit the unit to drain. After it has drained completely, move the housing back into position and tighten the bolts.

First, install the concentrate in the reduction unit and then fill to fill-hole level with motor oil as specified above. Replace the fill plug. Next, fill the transfer case to fill-hole level with the specified motor oil. Replace fill plug.

CAUTION: Fill plugs, drain plugs, and reduction housing bolts should not be overtightened. Tighten plugs and 3/8-16 bolts to 15 to 25 foot-pounds and 5/16-18 bolts to 10 to 20 foot-pounds torque. Overtightening may result in thread stripping or breakage of the aluminum unit.

After draining and refilling, it may be necessary to drive the vehicle in circles (in an open area) both clockwise and counterclockwise for about 15 minutes to allow the fresh lubricant to enter the differential unit and to force the clutches to operate.

CAUTION: When driving in tight circles, do not turn the wheels to the stop position—keep the wheel about half a turn off the stop position.

TIRES

Tires and tire services are excluded from the New Vehicle Warranty and Mechanical Maintenance Schedule. Tire adjustments are handled directly by their manufacturers. Their normal maintenance recommendations appear as guides under Tire Condition in this manual.

Recommended Lubricants

Component	Lubricant
Manual Transmission* Model 20 Transfer Case*	SAE 80W Gear Lubricant API-GL-4
Automatic Transmission*	AM Automatic Transmission Fluid or equivalent brand labelled Dexron® or Dexron II®
Power Steering Gear Pump*	AM Automatic Transmission Fluid or equivalent brand labelled Dexron®
Quadra-Trac Transfer Case* Low Range Reduction Unit*	Use a blend of AMC/Jeep Lubricant Concentrate, Jeep Part. No. 8123004 and SAE 30W non-detergent motor oil
Manual Steering Gear*	AM All-Purpose Lubricant or Multi-Purpose Chassis Lubricant (Lithium Base)
Brake Master Cylinder* (Drum or Disc Brakes)	AMC/Jeep Brake Fluid, Part No. 8992757 or equivalent conforming to SAE Standard J1703 and FMVSS No. 116, DOT 3 Brake Fluid
Axle Differentials—Front & Rear* Trac-Lok Axle Differential*	AM Rear Axle Lubricant or Limited-Slip Gear Lubricant of SAE 80W-90 (API-GL5) quality.
Propeller Shaft Double Cardan Joint; Propeller Shaft Single Cardan Joint; Propeller Shaft Sleeve Yokes; Model 20 Transfer Case Shift Lever; Model 20 Transfer Case Shift Linkage; Steering Linkage Ball Joints; Steering Shaft Universal Joint; Clutch Linkage Bellcrank	AM All-Purpose Lubricant or Multi-Purpose Chassis Lubricant (Lithium Base)
Front Wheel Bearings	Wheel Bearing Lubricant
Exhaust Manifold Heat Valve	AM Heat Valve Lubricant, Part No. 8891632 or equivalent
Ash Tray Slides Door, Hood, Liftgate, and Tailgate Lock Mechanisms Glove Box Latch and Hinges Parking Brake	AM Lubriplate or equivalent
Accelerator Linkage Door, Hood, Tailgate, and Liftgate Pivot Points	AM Motor Oil or equivalent brand
Weatherstripping	AM Silicone Lubricant Spray, Part No. 8992881 or equivalent
Key Lock Cylinders	Apply AM Silicone Lubricant Spray or light oil to key and insert in lock cylinder. Repeat several times
Air Cleaner Polyurethane Element	SAE 10W-30 engine oil

*No drain or refill required except when overhauled or serviced. See *Fluid Capacities* chart for refill quantities
Fluids specified are to be used for maintaining recommended levels as well as service refills.

Fluid Capacities

Capacities, Approximate Refill	U.S. Measure	Imperial Measure	Metric Measure - Liters
Engine Oil (Includes 1 quart for filter change) 232 CID & 258 CID engines 304 CID, 360 CID & 401 CID engines	6.0 quarts 5.0 quarts	5.0 quarts 4.2 quarts	5.7 4.7
Cooling System (Includes 1 quart for heater) 232 CID & 258 CID engines 304 CID engine 360 CID & 401 CID engines	10.5 quarts 14.0 quarts 13.0 quarts	8.7 quarts 11.6 quarts 10.8 quarts	10.0 13.2 12.3
Transfer Case Model 20 (a) Quadra-Trac (a) Quadra-Trac with Reduction Unit	3.2 pints 3.5 pints 4.5 pints	2.7 pints 2.9 pints 3.7 pints	1.5 1.7 2.1
Transmission Manual 3-Speed—CJ Models Manual 3-Speed—Cherokee, Wagoneer, & Truck Manual 4-Speed—All Models Automatic—Change Only Automatic—At Overhaul	3.0 pints 2.7 pints 6.5 pints 5.0 quarts 11.0 quarts	2.1 pints 2.2 pints 5.5 pints 4.2 quarts 9.2 quarts	1.2 1.3 3.1 4.7 10.4
Axles AMC Model Rear Axle—CJ Models Model 30—Front Axle—CJ Models (b) Model 44—Front or Rear Axle—All but CJ Models (b) Model 60-3 (FF) Rear Axle—Trucks over 6500 GVW	4.0 pints 2.5 pints 3.0 pints 6.0 pints	4.2 pints 2.1 pints 2.5 pints 5.0 pints	1.9 1.2 1.4 2.8
Gas Tank (Approximate Gallons) CJ Models Cherokee & Wagoneer Truck	15.5 gallons 22.0 gallons 19.0 gallons	12.9 gallons 18.3 gallons 15.8 gallons	58.7 83.3 71.9

(a) Quantities listed are for SAE 30 (good quality) Non-Detergent Motor Oil. Add eight ounces of Concentrate, Jeep Part Number 8123004.
(b) Capacities of conventional and Trac-Lok rear axles are identical.