MAINTENANCE INFORMATION

1988 Jeep Cherokee

1984-88 MAINTENANCE AMC/Jeep Maintenance Information

Jeep; Cherokee, Wagoneer

* PLEASE READ THIS FIRST *

NOTE:

For scheduled maintenance intervals and the related fluid capacities, fluid specifications and labor times for major service intervals, see SCHEDULED SERVICES article below:

- SCHEDULED SERVICES GASOLINE
- * SCHEDULED SERVICES DIESEL ENGINES NORMAL (1985-87)

Warranty information and specifications for fluid capacities, lubrication specifications, wheel and tire size, and battery type are covered in this article.

MODEL IDENTIFICATION

VIN LOCATION

The Vehicle Identification Number (VIN) is located on the left side of the dash panel at the base of the windshield. The VIN chart explains the code characters.

VIN CODE ID EXPLANATION

Numbers preceding the explanations in the legend below refer to the sequence of characters as listed on VIN identification label. See VIN example below.

ı	(VIN)	1	J	С	U	N	7	7	1	Χ	G	Τ	0	0	0	0	0	1	İ
i		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	

- 1 Manufacturing Country
 - 1 * United States
- 2 Company/Make
 - J * American Motors/Jeep
- 3 Type
 - * Multi-Purpose Vehicle
 * Incomplete Vehicle С

 - E * Export, LHD
 - * Export, RHD
- Engine Type
 - * 2.1L (128 CID) 4-Cylinder Turbo (Diesel) (001B) (1985-87)
 - 2.5L (150 CID) 4-Cylinder TBI (Gasoline) (001H) (1986-88)
 - * 2.5L (150 CID) 4-Cylinder 1-Bbl. (Gasoline) (001U) (1984-85)

 * 2.5L (150 CID) 4-Cylinder 1-Bbl. (Export) (001Y) (1984-85)

 * 2.5L (171 CID) V6 2-Bbl. (Gasoline) (001W) (1984-86) TT

 - * 4.0L (242 CID) I-6 (Gasoline) (001M) (1987-88)

```
5 - Transmission/(Transfer Case)
        Auto Column Shift (2WD)
        Auto Floor Shift (Part Time 4WD)
 В
       Auto Floor Shift (Full Time 4WD)
 С
    * Auto Floor Shift (2WD)
 D
    * Auto Column Shift (Part Time 4WD)
    * Auto Column Shift (Full Time 4WD)
       5-Speed Manual Floor Shift (Part Time 4WD)
 L
        5-Speed Manual Floor Shift (Full Time 4WD)
 M
  S
        4-Speed Manual Floor Shift (2WD)
       5-Speed Manual Shift (2WD)
4-Speed Manual Floor Shift (Part Time 4WD)
 X
6-7 - Body Style
        Cherokee Wagon 2-Door (2WD)
 74
        Cherokee Wagon 4-Door (2WD)
 75
        Wagoneer Wagon 4-Door (4WD)
 77
        Cherokee Wagon 2-Door (4WD)
 78
        Cherokee Wagon 4-Door (4WD)
8 - Trim Package
    * Custom
  2
       Pioneer
  3
       Chief
  4
       Laredo
  5
       Base
  5
        Wagoneer
  6
        Limited
  K
        Cherokee Base (2WD)
      Pioneer (2WD)
 L
    * Laredo (2WD)
 M
9 - Check Digit
     * Manufacturer Assigned
10 - Model Year
        1984
 Ε
        1985
 F
       1986
 G
       1987
 Н
    * 1988
11 - Assembly Plant
  T * Toledo, Ohio
12-17 - Sequential Serial Number
     * Production Sequence
```

MAINTENANCE SERVICE INFORMATION

SEVERE & NORMAL SERVICE DEFINITION

NOTE: Use the Severe Service schedule if the vehicle to be serviced is operated under ANY (one or more) of these conditions:

Service is recommended at specified mileage intervals of vehicle operation. Service schedules are based on the following primary operating conditions:

Severe Service

* Short Trips (About 15 Miles)

- Cold Climate Operation
- Towing Or Heavily Loading
- Severe Dust Conditions
- Sustained High Speed Operation
- Off-Road Driving
- Hot Weather, Stop-And-Go Driving
- Extensive Idling Conditions (Taxi Or Delivery Type Service)

Normal Service

- Driven More Than 10 Miles Daily
- No Severe Service Operating Conditions

CAMSHAFT TIMING BELT REPLACEMENT INFORMATION (TURBO-DIESEL)

CAUTION: Failure to replace a faulty camshaft timing belt may result in serious engine damage.

The condition of camshaft drive belts should always be checked on vehicles which have more than 50,000 miles. Although some manufacturers do not recommend belt replacement at a specified mileage, others require it at 60,000-100,000 miles. A camshaft drive belt failure may cause extensive damage to internal engine components on most engines, although some designs do not allow piston-to-valve contact. These designs are often called "Free Wheeling".

Many manufacturers changed their maintenance and warranty schedules in the mid-1980's to reflect timing belt inspection and/or replacement at 50,000-60,000 miles. Most service interval schedules reflect these changes.

Belts or components should be inspected and replaced if any of the following conditions exist:

- Cracks Or Tears In Belt Surface
- Missing, Damaged, Cracked Or Rounded Teeth
- Oil Contamination
- Damaged Or Faulty Tensioners
- Incorrect Tension Adjustment

SERVICE LABOR TIMES

SERVICE LABOR TIMES TABLE (HOURS)

	(1) 30,000 Mile Service Mi	60,000 ile Service
2.1L (Turbo Diesel) Automatic Transmission Manual Transmission 2.5L		
Automatic Transmission Manual Transmission		
Automatic Transmission		
Automatic Transmission Manual Transmission		
(1) - Add .8 hr. for vehicles equipy	ped with 4WD.	

SERVICE POINT LOCATIONS

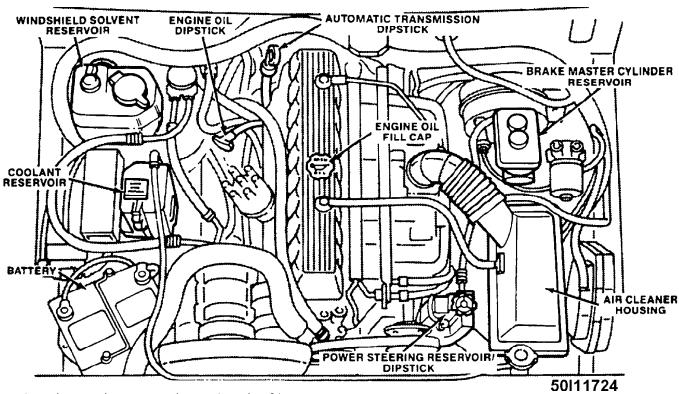


Fig. 1: Service Point Locations (Typical) Courtesy of American Motors Corp.

NOTE: The 2.1L Turbo-Diesel engine has two (2) oil drain plugs

ADDITIONAL SERVICE INFORMATION

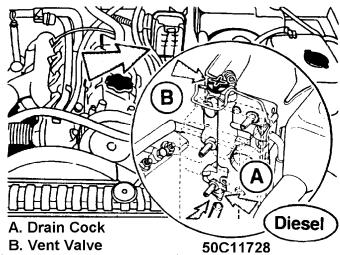


Fig. 2: Water Separator (Diesel) Courtesy of American Motors Corp.

NOTE: For more information regarding 2.1L Turbo-Diesel engine service refer to the TUNE-UP - DIESEL article in

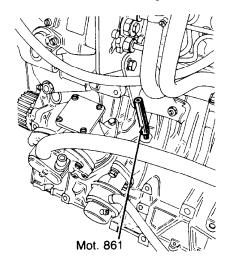
the ENGINE PERFORMANCE section.

Fuel filter should be drained whenever "WATER IN FUEL" warning light glows. Diesel fuel can damage asphalt and painted surfaces. Always place a drain pan under fuel filter to collect contaminated fuel. See Fig. 2.

- 1) Stop vehicle and turn engine of \hat{f} . Attach a long piece of tubing to drain cock outlet. Place end of drain hose into drain pan. Open filter assembly vent valve (Black + shaped knob) and drain cock.
- 2) Drain approximately 1/2 pint (.24 Liters) from fuel filter. Close vent valve and drain cock. Start engine and check for leaks. If "WATER IN FUEL" warning lamp comes on again, remove water contaminated fuel from fuel lines and fuel tank.

WARNING: DO NOT bleed fuel lines on hot engine, as high exhaust temperatures could cause fire. Use care when bleeding fuel lines, as fuel is under extreme pressure and could penetrate skin, causing personal injury. Wear safety goggles and protective clothing when bleeding fuel lines.

CAUTION: DO NOT drain fuel/water separator when engine is running or hot. Allow engine to cool before draining. Verify that the WATER IN FUEL light on instrument panel is OFF.



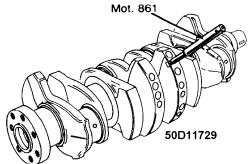


Fig. 3: Locking Crankshaft at TDC Courtesy of American Motors/Jeep Corp.

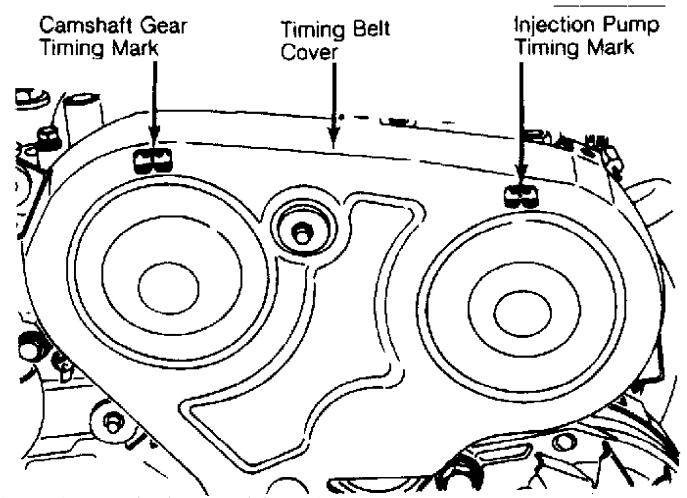


Fig. 4: Camshaft & Injection Pump Timing Marks Courtesy of American Motors/Jeep Corp.

NOTE: The original oil filter (A) in the rocker arm shaft must be replaced.

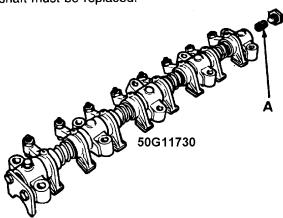
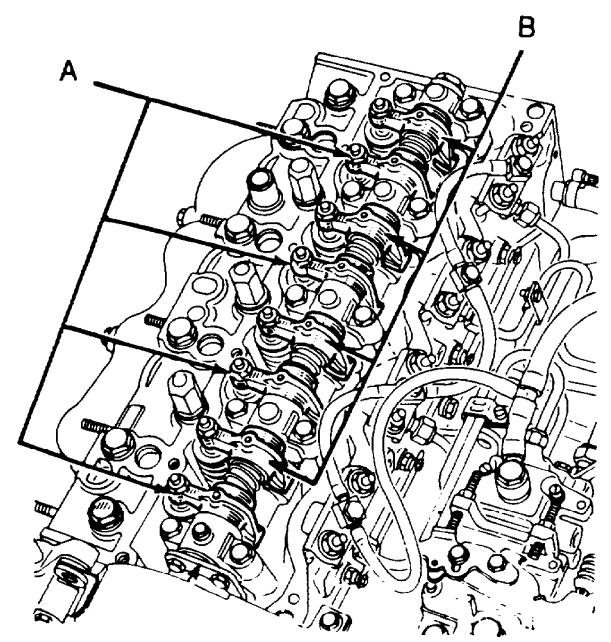


Fig. 5: Rocker Arm Shaft Assembly (Oil Filter Location) Courtesy of American Motors/Jeep Corp.



A. Intake Valve Rocker Arms

50H11731

B. Exhaust Valve Rocker Arms

NOTE: The number 1 (one) cylinder is located at the flywheel/drive plate end of the engine.

Fig. 6: Valve Layout Courtesy of American Motors/Jeep Corp.

article in the ENGINE MECHANICAL section.

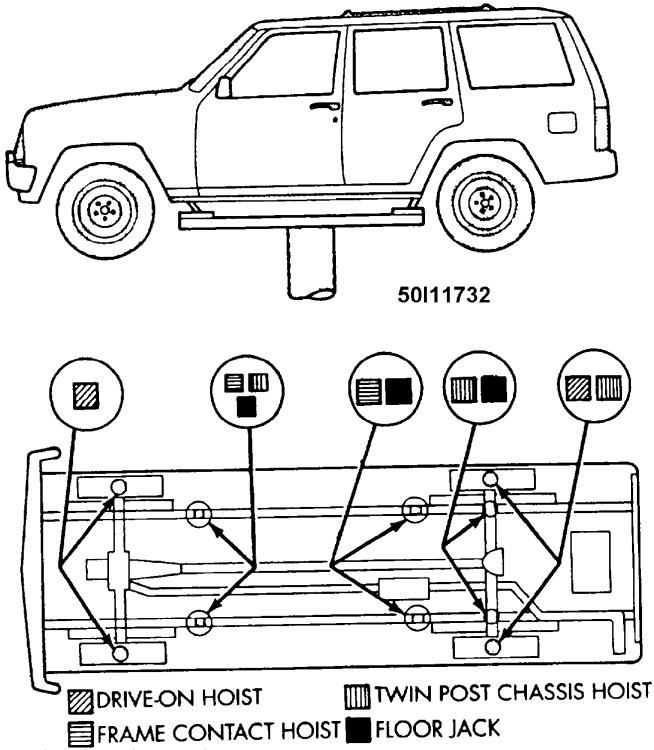
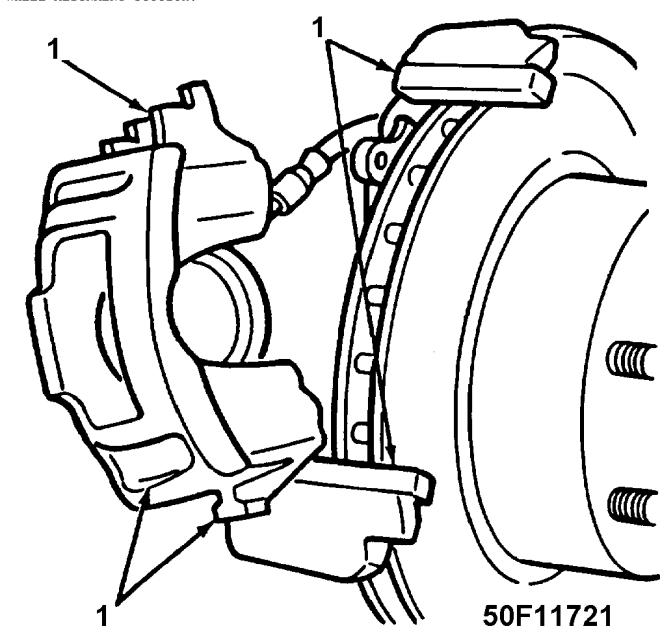


Fig. 7: Hoist Lift Point Locations Courtesy of American Motors Corp.

NOTE: For more information regarding jacking and hoisting refer to the JACKING & HOISTING article in the

WHEEL ALIGNMENT section.



1. LUBRICATION POINTS
Fig. 8: Brake Caliper Lubrication Points
Courtesy of American Motors Corp.

For more information regarding brake maintenance refer to the $\ensuremath{\mathsf{BRAKE}}$ SYSTEM article. NOTE:

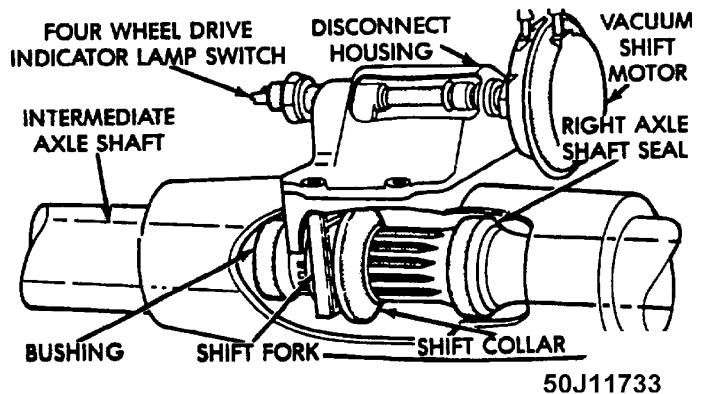
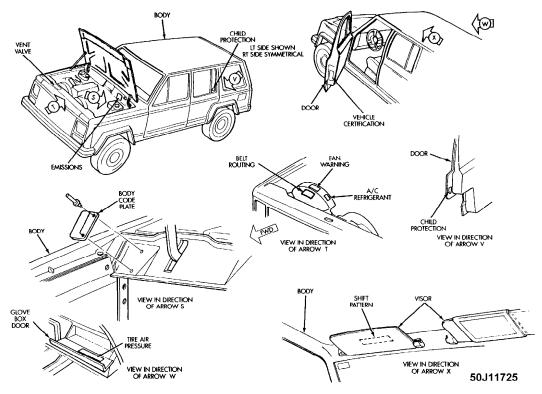


Fig. 9: Front Disconnect Housing Lubrication Point Courtesy of American Motors Corp.

IDENTIFICATION LABEL LOCATIONS



VEHICLE, LABELS AND PLATES
Fig. 10: Identification Label Locations
Courtesy of American Motors Corp.

LUBRICATION SPECIFICATIONS

LUBRICATION SPECIFICATIONS TABLE

Application Fluid Specifications
Automatic Transmission
Above 30° F (-1°C) SAE 20W-40 Or 20W-50 API SH/CD Above 0° F (-18°C) SAE 10W-30 Or 10W-40 API SH/CD Less Than 60° F (16°C) SAE 5W-30 API SH/CD Diesel Engine Temperature Range
Above 30° F (-1°C) SAE 15W-40, 20W-40 Or 20W-50 API SH/CD
0° F (-18°C) to 100° F (38°C) SAE 10W-30 API SH/CD Less Than 50° F (10°C) SAE 5W-30 API SH/CD Front Axle SAE 80W-90 API GL-5 Rear Axle SAE 80W-90 API GL-5 Rear Axle (Trac-Lok) (2) SAE 80W-140 API GL-5 Rear Axle (Trailer Towing) (3) SAE 75W-140 Synthetic Hydraulic Clutch DOT 3 (SAE J-1703F) Brake Fluid Manual Transmission SAE 75W-90 API GL-5 Manual Steering Box Multi-Purpose NLGI Grade 2EP Power Steering Pump Power Steering Fluid Transfer Case Dexron-IIE ATE

Brake Caliper Bushings GE 661 or DOW 111 Silicone Grease
Caliper Slide Pins GE 661 or DOW 111 Silicone Grease
Wheel Bearings Multi-Purpose NLGI Grade 2EP, GC-LE
Drive Shaft U-Joints Multi-Purpose NLGI Grade 2EP, GC-LE
Steering Linkage (4)(5) Multi-Purpose NLGI Grade 2EP, GC-Li
Ball Joints (4)(6) Multi-Purpose NLGI Grade 2EP, GC-LI
Engine Oil Filter (Diesel) (7) AMC/Jeep (P/N 8983 002 656)
Weatherstrip Silicone Spray Lubricant

- (1) SAE 10W-30 SH/CD is preferred.
- (2) Add 2 Ozs. (59 ml) of Limited-Slip differential lubricant additive when changing fluid.
- (3) For vehicles operating under heavy-duty towing conditions, use SAE 75W-140 Synthetic lube. NOTE: Before using SAE 75W-140 Synthetic the old fluid must be DRAINED and FLUSHED with clean mineral based (non-synthetic) axle lubricant. Then refill with new synthetic lube.
- (4) Use low pressure grease gun to prevent seal damage.
- (5) Fill until lubricant squeezes out from the base of seals.
 (6) Fill ball joint until seal starts to swell.
 (7) Use of AMC/Jeep Oil Filter is RECOMMENDED.

FLUID CAPACITIES

FLUID CAPACITIES TABLE

Application	Quantity (1)
A/C System R-12 Refrigerant Capacity Automatic Transmission 1984-86 (904 HD)	36-40 Ozs.
Fluid Change	4.0 Qts. (3.8L) 8.0 Qts. (7.6L)
Fluid Change	
4-Cylinder	2.0 Qts. (11.4L)
4-Cylinder	4.0 Qts. (3.8L) 6.0 Qts. (5.7L) 5.5 Qts. (8.5L)
Standard	
AX4 (AISIN) T4 (Borg-Warner) AX5 (AISIN) T5 (Borg-Warner) Transfer Case	7.4 Pts. (3.5L) 3.9 Pts. (1.8L) 7.0 Pts. (3.3L) 4.5 Pts. (2.1L)
1985-86 Selec-Trac (229 Full-Time)	6.0 Pts. (2.8L) 4.5 Pts. (2.1L)
Selec-Trac	2.2 Pts. (1.0L)
Selec-Trac	3.0 Pts. (1.4L)

Command-Trac 2.2 Pts. (1.0L) Drive Axles (3)
Front 2.5 Pts. (1.2L)
Front (Disconnect Housing) (4) 5.0 Ozs. (0.15L)
Rear 2.5 Pts. (1.2L)
Rear (Trac-Lok) (5) 2.5 Pts. (1.2L)
 (1) - Capacities are recommended or calculated levels. Always use dipstick (if available) to measure level. (2) - Includes 2.3 Qts. for coolant recovery bottle. (3) - Fill to bottom of filler plug hole. (4) - Add 5 Ozs. of gear lubricant through indicator switch hole.
(5) - Add 2 Ozs. of Limited-Slip differential lubricant additive first, then add new fluid.

WHEEL & TIRE SPECIFICATIONS

WHEEL & TIRE SPECIFICATIONS TABLE

Wheel Size	Tire Size
Cherokee 15x6 & 15x7 (Aluminum Or Steel) P205/75R15P215/75R15	
Wagoneer 15x6 (Aluminum/Steel)	. P205/75R15
	ct Spare Tire

TIRE REPLACEMENT

CAUTION: Always ensure all 4 tires on the vehicle are the same size, except when using the temporary spare. The use of mismatched tires may cause unpredictable handling. Replacing original tires with tires of a different size may result in false speedometer and odometer indications.

TIRE INFLATION

The tire specification decal is located in the glove box.

WHEEL TIGHTENING

Tighten the lug nuts firmly in a crisscross pattern as shown in Fig. 11. Tighten to 95 ft. lbs (129 N.m). Always position wheel locking nut opposite valve stem in position indicated. See Fig. 11.

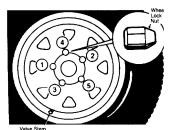


Fig. 11: Wheel Locking Nut Location Courtesy of American Motors Corp.

BATTERY SPECIFICATIONS

CAUTION: When battery is disconnected, vehicles equipped with computers may lose memory data. When battery power is restored, driveability problems may exist on some vehicles. These vehicles may require a relearn procedure. See COMPUTER RELEARN PROCEDURES article in the GENERAL INFORMATION section.

All gasoline engine equipped models use group 58 batteries with 390 or 475 amp cold crank rating. Models with 2.1L Turbo Diesel engine use group 24 batteries with a 815 amp cold crank rating.

CAUTIONS & WARNINGS

REPLACING BLOWN FUSES

Before replacing a blown fuse, remove ignition key, turn off all lights and accessories to avoid damaging the electrical system. Be sure to use fuse with the correct indicated amperage rating. The use of an incorrect amperage rating fuse may result in a dangerous electrical system overload.

BATTERY WARNING

WARNING: When battery is disconnected, vehicles equipped with computers may lose memory data. When battery power is restored, driveability problems may exist on some vehicles. These vehicles may require a relearn procedure. See COMPUTER RELEARN PROCEDURES article in GENERAL INFORMATION section.

BRAKE PAD WEAR INDICATOR

Indicator will cause a squealing or scraping noise, warning that brake pads need replacement.

DIESEL FUEL ANTI-FUNGAL ADDITIVES

CAUTION: If fuel contamination due to fungi or other microorganisms is suspected a fuel additive with a biocide may be used. Follow the manufacturers dosage as recommended on product label. Use biocides ONLY when necessary, excessive use can may cause other fuel system problems.

DIESEL FUEL CONTAMINATION

WARNING: Diesel fuel system may be contaminated with fungi or other microorganisms. Keep contaminated fuel away from open skin cuts or sores to prevent skin irritation or infection.

DIESEL FUEL REQUIREMENTS

CAUTION: All diesel engines are to use Diesel Fuel #2 when the outside temperature is above 20°F (-7°C). In temperatures that are below 20°F (-7°C) use Diesel Fuel #1, this will reduce the chance of the fuel thickening and forming wax.

Note: A Diesel Fuel #1 & #2 combination (Blended Fuel) may be used, and is recommended for mild winter driving.

ELECTROSTATIC DISCHARGE SENSITIVE (ESD) PARTS

WARNING: Many solid state electrical components can be damaged by static electricity (ESD). Some will display a warning label, but many will not. Discharge personal static electricity by touching a metal ground point on the vehicle prior to servicing any ESD sensitive component.

ENGINE OIL

CAUTION: Never use non-detergent or straight mineral oil.

CAUTION: Do not use reclaimed fluid, mineral oil, fluid that was stored in old or open containers, or fluid inferior to AMC Standard AM 4101. Be sure to handle the fluid in clean containers that will not introduce even a slight amount of foreign liquids or particles. Such contamination of fluid could lead to hydraulic system failure.

ENGINE OIL FILTER (GASOLINE)

CAUTION: Verify that proper Oil Filter is being used. Filters with metric threads (M20 x 1.5) must be used with some engines. Other engines use SAE type $(3/4"\ x\ 16)$ threads, and must use an oil filter with these threads. Possible engine damage can occur with improper oil filter.

ENGINE OIL FILTER (TURBO DIESEL ONLY)

CAUTION: The engine oil filter has METRIC threads. Use of a filter with improper threads can result in oil leakage and possible engine damage. Look for thread size symbol M20x1.5 on filter.

FUEL SYSTEM SERVICE

WARNING: DO NOT bleed fuel lines on hot engine, as high exhaust temperatures could cause fire. Use care when bleeding fuel lines, as fuel is under extreme pressure and could penetrate skin, causing personal injury. Wear safety goggles and protective clothing when bleeding fuel lines.

WARNING: Relieve fuel system pressure prior to servicing any fuel system component.

HALOGEN BULBS

Halogen bulbs contain pressurized gas which may explode if overheated. DO NOT touch glass portion of bulb with bare hands. Eye protection should be worn when handling or working around halogen bulbs.

RADIATOR CAP

CAUTION: Always disconnect the fan motor when working near the radiator fan. The fan is temperature controlled and could start at any time even when the ignition key is in the OFF position. DO NOT loosen or remove radiator cap when cooling system is hot.

STARTING FLUID USE (TURBO DIESEL)

WARNING: DO NOT USE starting fluids (ether) or flammable liquids to aid the starting of a Cummins Turbo-Diesel. NEVER pour diesel fuel, flammable liquids or starting fluids into the air cleaner canister, air intake or turbocharger housing in an attempt to start the vehicle. A flash fire may result causing personal injury.

TRANSFER CASE

CAUTION: Both drive axles are disengaged when transmission gear is in Neutral position. Always set parking brake when leaving vehicle unattended.

CAUTION: Never attempt to engage Low range when vehicle is moving faster than 2-3 MPH (3-5 KM/H). Transfer case damage may result.

GASOLINES CONTAINING ALCOHOL

CAUTION: Exclusive use of gasohol is not recommended. Vehicle test results have shown that significant fuel system corrosion can result when gasohol is used exclusively. Fuel additives which are now being sold as octane enhancers are not recommended. Most of these products contain high concentrations of methanol.

WARRANTY INFORMATION

CAUTION: Due to the different warranties offered in various regions and the variety of after-market extended warranties available, please refer to the warranty package that came with the vehicle to verify all warranty options.

BASIC NEW CAR WARRANTY

Jeep Corporation warrants to the original purchaser that the vehicle is free from defects under normal use and service for 12 months or 12,000 miles, whichever comes first.

POWERTRAIN PROTECTION LIMITED WARRANTY

Begins at 12 months or 12,000 miles and lasts for 7 years or 70,000 miles, whichever comes first. Warranty covers Engine, Transmission, Transfer Case, and Drive Shaft/Drive Axle(s) for RWD & 4WD.

Items not covered include, normal scheduled maintenance, tune-ups, clutch adjustments, lack of proper maintenance, and vehicles on which the mileage cannot readily be determined. A 100.00 deductible on 2WD models and a 150.00 deductible on 4WD models applies to each repair visit.

Powertrain Warranty also covers cost of towing to nearest Jeep Dealer if vehicle cannot be driven due to failure of a covered powertrain part.

ANTI-CORROSION PERFORATION WARRANTY

Warrants the sheet metal parts of the vehicle against perforation (rust-through) due to corrosion. It covers any body sheet metal panel for unlimited mileage during the first 36 months. Outerbody sheet metal panels are covered for 7 years or 100,000 miles,

whichever occurs first.

EMISSION DEFECT WARRANTY (EXCEPT CALIFORNIA)

It warrants that vehicle meets Federal emissions standards in force at time of vehicle's manufacture. Warranty covers the cost of repair or adjustment of any parts of vehicle's emission control systems that are defective in material, workmanship or factory preparation, but ONLY IF the defect causes the vehicle to fail to meet Federal standards. Begins at warranty start date and lasts for 5 years or 50,000 miles, whichever occurs first.

EMISSION PERFORMANCE WARRANTY (EXCEPT CALIFORNIA)

It begins at warranty start date and lasts for 5 years or 50, 000 miles, whichever comes first. This warranty applies only under the following conditions:

- * Vehicle failed a Federally-approved state or local emissions test.
- * Vehicle has been maintained and operated properly up until the time of testing.
- * Owner faces a penalty or other sanctions because of the vehicle's failure to pass the local emissions test.

The following components and systems are covered: Carburetor Feedback Control System, Electronic Fuel Injection System, Air Cleaner Vapor Containment Door System, Electronic Spark Control, Electronic Control Module, Vapor Storage Canister and Controls, Deceleration Throttle Control, EGR Valve & Control System, Air Pump, Belt & Pulley, Air Injection Controls, PCV Valve, Catalytic Converter, Vacuum Hoses, Clamps, Fittings & Tubing used in these components and systems, Vacuum, Temperature, Altitude, Speed and Time-Sensitive Valves and Switches used in these components and systems.

EMISSION PERFORMANCE WARRANTY (CALIFORNIA)

If vehicle fails a Smog Check inspection, all necessary repairs and adjustments will be made by manufacturer to ensure that your vehicle passes the inspection. Warranty begins at warranty start date and lasts for a period of 3 years or 50,000 miles, whichever occurs first.

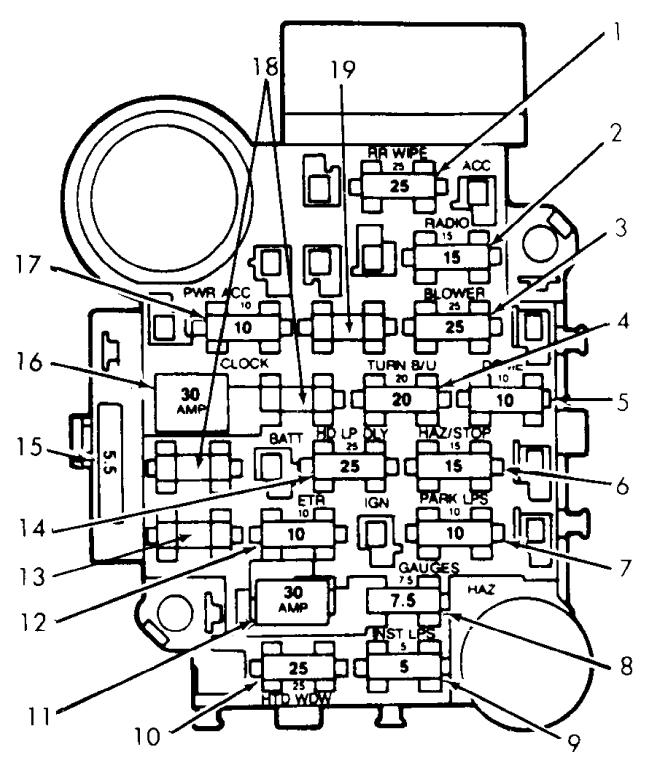
EMISSION DEFECTS WARRANTY (CALIFORNIA)

If any emission-related part on your vehicle is defective, the part will be repaired or replaced by manufacturer for a period of 3 years or 50,000 miles, whichever occurs first. Warranty begins at warranty start date and lasts for a period of 3 years or 50,000 miles, whichever occurs first.

The following emission-related parts are warranted for 7 years or 70,000 miles, whichever occurs first, and will be repaired or replaced by manufacturer if found to be defective in material or workmanship: Catalytic Converter, Intake Manifold, Carburetor, Throttle Body, Injectors, Fuel Tank, Exhaust Manifolds (4.0L).

FUSES & CIRCUIT BREAKERS

Fuse panel is located at the lower left side of dash on most models.



93C4457

Fig. 12: Fuse Panel Identification Courtesy of American Motors Corp.

Fuse & Circuit Breaker Identification

1 - 25 Amp Rear Washer/Wiper 2 - 15 Amp Radio, Cigarette Lighter 3 - 25 Amp Blower Motor 4 - 20 Amp Turn Signal, Back-Up Lights, Rear Window Defogger Relay 5 - 10 Amp Dome Light, Courtesy Lights, Glove Box Light, Cargo Light, Radio Memory, Power Mirrors, Teltak Connector 6 - 15 Amp Hazard Warning System, Stoplights 7 - 10 Amp Parking Lights, Headlight Warning Chime/Buzzer, Instrument Panel Light Dimmer 8 - 7.5 Amp Gauges, Instrument Cluster, Seat Belt Warning, Headlight Delay, Chime Module, Overhead Console 9 - 5 Amp Instrument Panel Illumination 10 - 25 Amp Rear Window Defogger 11 - 30 Amp (Circuit Breaker) Power Door Locks, Power Seats, Trailer Towing Wiring Harness 12 - 10 Amp ETR Radio, Power Antenna 13 - Not Used (1984-87) 7.5 Amp (1988) Transmission Control Unit 14 - 25 Amp Headlight Delay, Horns, Security Alarm 15 - 5.5 Amp (Circuit Breaker)

Front Wiper
16 - 30 Amp (Circuit Breaker)
Power Windows

Clock, Security Alarm (IGN)

17 - 10 Amp