

LUBRICATION & MAINTENANCE

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INTERNATIONAL SYMBOLS

DESCRIPTION

DaimlerChrysler Corporation uses international symbols to identify engine compartment lubricant and fluid inspection and fill locations (Fig. 1).

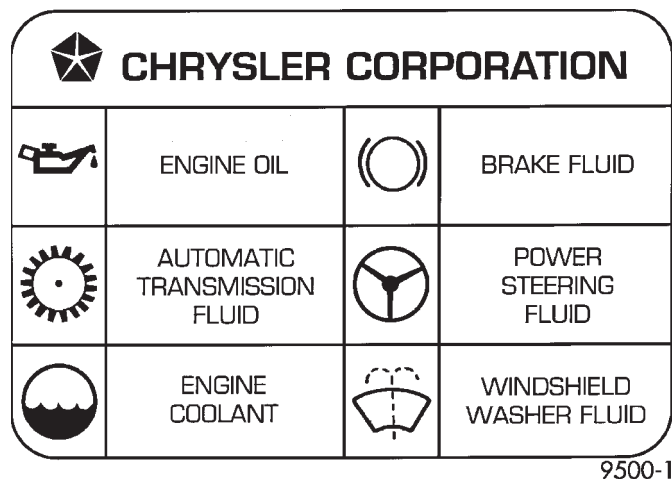


Fig. 1 International Symbols

PARTS & LUBRICANT RECOMMENDATION

STANDARD PROCEDURE - CLASSIFICATION OF LUBRICANTS

Only lubricants that are endorsed by the following organization should be used to service a DaimlerChrysler Corporation vehicle.

- Society of Automotive Engineers (SAE)
- American Petroleum Institute (API) (Fig. 6)
- National Lubricating Grease Institute (NLGI) (Fig. 2)

Lubricating grease is rated for quality and usage by the NLGI. All approved products have the NLGI symbol (Fig. 2) on the label. At the bottom NLGI symbol is the usage and quality identification letters. Wheel bearing lubricant is identified by the letter "G". Chassis lubricant is identified by the latter "L". The letter following the usage letter indicates the quality of the lubricant. The following symbols indicate the highest quality.

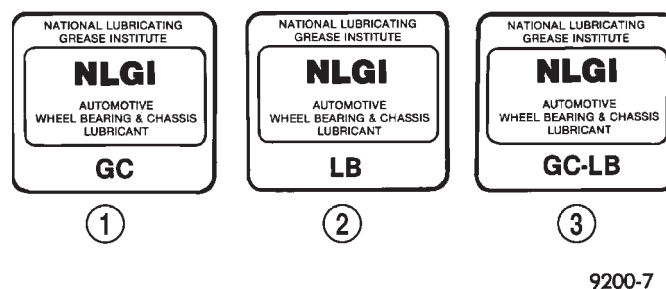


Fig. 2 NLGI Symbol

- 1 - WHEEL BEARINGS
- 2 - CHASSIS LUBRICATION
- 3 - CHASSIS AND WHEEL BEARINGS

When service is required, DaimlerChrysler Corporation recommends that only Mopar® brand parts, lubricants and chemicals be used. Mopar provides the best engineered products for servicing DaimlerChrysler Corporation vehicles.

FLUID TYPES

DESCRIPTION - FUEL REQUIREMENTS - GAS ENGINES

Your engine is designed to meet all emissions regulations and provide excellent fuel economy and performance when using high quality unleaded gasoline having an octane rating of 87. The use of premium gasoline is not recommended. The use of premium gasoline will provide no benefit over high quality regular gasoline, and in some circumstances may result in poorer performance.

Light spark knock at low engine speeds is not harmful to your engine. However, continued heavy spark knock at high speeds can cause damage and immediate service is required. Engine damage resulting from operation with a heavy spark knock may not be covered by the new vehicle warranty.

Poor quality gasoline can cause problems such as hard starting, stalling and hesitations. If you experience these symptoms, try another brand of gasoline before considering service for the vehicle.

Over 40 auto manufacturers world-wide have issued and endorsed consistent gasoline specifications (the Worldwide Fuel Charter, WWFC) to define fuel properties necessary to deliver enhanced emissions, performance and durability for your vehicle. We recommend the use of gasolines that meet the WWFC specifications if they are available.

REFORMULATED GASOLINE

Many areas of the country require the use of cleaner burning gasoline referred to as "reformulated" gasoline. Reformulated gasoline contain oxygenates, and are specifically blended to reduce vehicle emissions and improve air quality.

We strongly supports the use of reformulated gasoline. Properly blended reformulated gasoline will provide excellent performance and durability for the engine and fuel system components.

GASOLINE/OXYGENATE BLENDS

Some fuel suppliers blend unleaded gasoline with oxygenates such as 10% ethanol, MTBE, and ETBE. Oxygenates are required in some areas of the country during the winter months to reduce carbon monoxide emissions. Fuels blended with these oxygenates may be used in your vehicle.

CAUTION: DO NOT use gasoline containing METHANOL. Gasoline containing methanol may damage critical fuel system components.

MMT IN GASOLINE

MMT is a manganese-containing metallic additive that is blended into some gasoline to increase octane. Gasoline blended with MMT provide no performance advantage beyond gasoline of the same octane number without MMT. Gasoline blended with MMT reduce spark plug life and reduce emission system performance in some vehicles. We recommend that gasolines free of MMT be used in your vehicle. The MMT content of gasoline may not be indicated on the gasoline pump; therefore, you should ask your gasoline retailer whether or not his/her gasoline contains MMT.

It is even more important to look for gasoline without MMT in Canada because MMT can be used at levels higher than allowed in the United States. MMT is prohibited in Federal and California reformulated gasoline.

SULFUR IN GASOLINE

If you live in the northeast United States, your vehicle may have been designed to meet California low emission standards with Cleaner-Burning California reformulated gasoline with low sulfur. If such fuels are not available in states adopting California emission standards, your vehicles will operate satisfactorily on fuels meeting federal specifications, but emission control system performance may be adversely affected. Gasoline sold outside of California is permitted to have higher sulfur levels which may affect the performance of the vehicle's catalytic converter. This may cause the Malfunction Indicator Lamp (MIL), Check Engine or Service Engine Soon light to illuminate. We recommend that you try a different brand of unleaded gasoline having lower sulfur to determine if the problem is fuel related prior to returning your vehicle to an authorized dealer for service.

CAUTION: If the Malfunction Indicator Lamp (MIL), Check Engine or Service Engine Soon light is flashing, immediate service is required; see on-board diagnostics system section.

MATERIALS ADDED TO FUEL

All gasoline sold in the United States and Canada are required to contain effective detergent additives. Use of additional detergents or other additives is not needed under normal conditions.

FUEL SYSTEM CAUTIONS

CAUTION: Follow these guidelines to maintain your vehicle's performance:

FLUID TYPES (Continued)

- The use of leaded gas is prohibited by Federal law. Using leaded gasoline can impair engine performance, damage the emission control system, and could result in loss of warranty coverage.

- An out-of-tune engine, or certain fuel or ignition malfunctions, can cause the catalytic converter to overheat. If you notice a pungent burning odor or some light smoke, your engine may be out of tune or malfunctioning and may require immediate service. Contact your dealer for service assistance.

- When pulling a heavy load or driving a fully loaded vehicle when the humidity is low and the temperature is high, use a premium unleaded fuel to help prevent spark knock. If spark knock persists, lighten the load, or engine piston damage may result.

- The use of fuel additives which are now being sold as octane enhancers is not recommended. Most of these products contain high concentrations of methanol. Fuel system damage or vehicle performance problems resulting from the use of such fuels or additives is not the responsibility of DaimlerChrysler Corporation and may not be covered under the new vehicle warranty.

NOTE: Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

DESCRIPTION - FUEL REQUIREMENTS - DIESEL ENGINE

DESCRIPTION

WARNING: Do not use alcohol or gasoline as a fuel blending agent. They can be unstable under certain conditions and hazardous or explosive when mixed with diesel fuel.

Use good quality diesel fuel from a reputable supplier in your Dodge truck. For most year-round service, number 2 diesel fuel meeting ASTM specification D-975 will provide good performance. If the vehicle is exposed to extreme cold (below 0°F/-18°C), or is required to operate at colder-than-normal conditions for prolonged periods, use climatized No. 2 diesel fuel or dilute the No. 2 diesel fuel with 50% No. 1 diesel fuel. This will provide better protection from fuel gelling or wax-plugging of the fuel filters.

Diesel fuel is seldom completely free of water. To prevent fuel system trouble, including fuel line freezing in winter, drain the accumulated water from the fuel/water separator using the fuel/water separator drain provided. If you buy good-quality fuel and follow the cold-weather advice above, fuel conditioners should not be required in your vehicle. If available in your area, a high cetane "premium" diesel fuel may

offer improved cold starting and warm-up performance.

DESCRIPTION - ENGINE COOLANT

WARNING: ANTIFREEZE IS AN ETHYLENE GLYCOL BASE COOLANT AND IS HARMFUL IF SWALLOWED OR INHALED. IF SWALLOWED, DRINK TWO GLASSES OF WATER AND INDUCE VOMITING. IF INHALED, MOVE TO FRESH AIR AREA. SEEK MEDICAL ATTENTION IMMEDIATELY. DO NOT STORE IN OPEN OR UNMARKED CONTAINERS. WASH SKIN AND CLOTHING THOROUGHLY AFTER COMING IN CONTACT WITH ETHYLENE GLYCOL. KEEP OUT OF REACH OF CHILDREN. DISPOSE OF GLYCOL BASE COOLANT PROPERLY, CONTACT YOUR DEALER OR GOVERNMENT AGENCY FOR LOCATION OF COLLECTION CENTER IN YOUR AREA. DO NOT OPEN A COOLING SYSTEM WHEN THE ENGINE IS AT OPERATING TEMPERATURE OR HOT UNDER PRESSURE, PERSONAL INJURY CAN RESULT. AVOID RADIATOR COOLING FAN WHEN ENGINE COMPARTMENT RELATED SERVICE IS PERFORMED, PERSONAL INJURY CAN RESULT.

CAUTION: Use of Propylene Glycol based coolants is not recommended, as they provide less freeze protection and less corrosion protection.

The cooling system is designed around the coolant. The coolant must accept heat from engine metal, in the cylinder head area near the exhaust valves and engine block. Then coolant carries the heat to the radiator where the tube/fin radiator can transfer the heat to the air.

The use of aluminum cylinder blocks, cylinder heads, and water pumps requires special corrosion protection. Mopar® Antifreeze/Coolant, 5 Year/100,000 Mile Formula (MS-9769), or the equivalent ethylene glycol base coolant with organic corrosion inhibitors (called HOAT, for Hybrid Organic Additive Technology) is recommended. This coolant offers the best engine cooling without corrosion when mixed with 50% Ethylene Glycol and 50% distilled water to obtain a freeze point of -37°C (-35°F). If it loses color or becomes contaminated, drain, flush, and replace with fresh properly mixed coolant solution.

CAUTION: Mopar® Antifreeze/Coolant, 5 Year/100,000 Mile Formula (MS-9769) may not be mixed with any other type of antifreeze. Mixing of coolants other than specified (non-HOAT or other HOAT), may result in engine damage that may not be covered under the new vehicle warranty, and decreased corrosion protection.

FLUID TYPES (Continued)

COOLANT PERFORMANCE

The required ethylene-glycol (antifreeze) and water mixture depends upon climate and vehicle operating conditions. The coolant performance of various mixtures follows:

Pure Water—Water can absorb more heat than a mixture of water and ethylene-glycol. This is for purpose of heat transfer only. Water also freezes at a higher temperature and allows corrosion.

100 percent Ethylene-Glycol—The corrosion inhibiting additives in ethylene-glycol need the presence of water to dissolve. Without water, additives form deposits in system. These act as insulation causing temperature to rise to as high as 149°C (300°F). This temperature is hot enough to melt plastic and soften solder. The increased temperature can result in engine detonation. In addition, 100 percent ethylene-glycol freezes at -22°C (-8°F).

50/50 Ethylene-Glycol and Water—Is the recommended mixture, it provides protection against freezing to -37°C (-34°F). The antifreeze concentration **must always** be a minimum of 44 percent, year-round in all climates. If percentage is lower, engine parts may be eroded by cavitation. Maximum protection against freezing is provided with a 68 percent antifreeze concentration, which prevents freezing down to -67.7°C (-90°F). A higher percentage will freeze at a warmer temperature. Also, a higher percentage of antifreeze can cause the engine to overheat because specific heat of antifreeze is lower than that of water.

CAUTION: Richer antifreeze mixtures cannot be measured with normal field equipment and can cause problems associated with 100 percent ethylene-glycol.

COOLANT SELECTION AND ADDITIVES

NOTE: Refer to the vehicle's coolant bottle to identify HOAT or Non-HOAT coolant. Non-HOAT coolant is green in color.

The use of aluminum cylinder blocks, cylinder heads and water pumps requires special corrosion protection. Only Mopar® Antifreeze/Coolant, 5 Year/100,000 Mile Formula (glycol base coolant with corrosion inhibitors called HOAT, for Hybrid Organic Additive Technology) is recommended. This coolant offers the best engine cooling without corrosion when mixed with 50% distilled water to obtain to obtain a freeze point of -37°C (-35°F). If it loses color or becomes contaminated, drain, flush, and replace with fresh properly mixed coolant solution.

CAUTION: Do not use coolant additives that are claimed to improve engine cooling.

DESCRIPTION—ENGINE OIL

API SERVICE GRADE CERTIFIED

WARNING: NEW OR USED ENGINE OIL CAN BE IRRITATING TO THE SKIN. AVOID PROLONGED OR REPEATED SKIN CONTACT WITH ENGINE OIL. CONTAMINANTS IN USED ENGINE OIL, CAUSED BY INTERNAL COMBUSTION, CAN BE HAZARDOUS TO YOUR HEALTH. THOROUGHLY WASH EXPOSED SKIN WITH SOAP AND WATER. DO NOT WASH SKIN WITH GASOLINE, DIESEL FUEL, THINNER, OR SOLVENTS, HEALTH PROBLEMS CAN RESULT. DO NOT POLLUTE, DISPOSE OF USED ENGINE OIL PROPERLY. CONTACT YOUR DEALER OR GOVERNMENT AGENCY FOR LOCATION OF COLLECTION CENTER IN YOUR AREA.

Standard engine-oil identification notations have been adopted to aid in the proper selection of engine oil. The identifying notations are located on the label of engine oil plastic bottles and the top of engine oil cans.

In diesel engines, use an engine oil that conforms to API Service Grade CF-4 or CG-4/SH (Fig. 3). MOPAR® provides an engine oil that conforms to this particular grade.

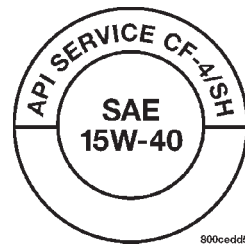


Fig. 3 API Service Grade Certification Label—Diesel Engine Oil

SAE VISCOSITY

An SAE viscosity grade is used to specify the viscosity of engine oil. SAE 15W-40 specifies a multiple viscosity engine oil.

When choosing an engine oil, consider the range of temperatures the vehicle will be operated in before the next oil change. Select an engine oil that is best suited to your area's particular ambient temperature range and variation. For diesel engines, refer to (Fig. 4).

FLUID TYPES (Continued)

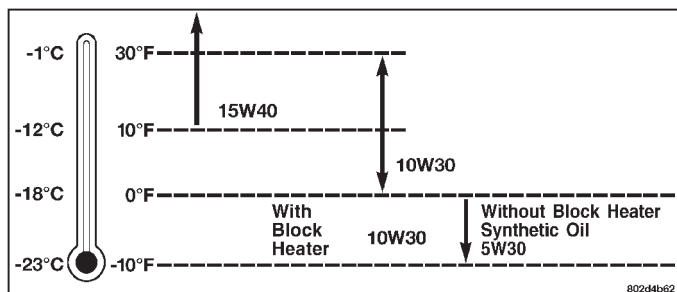


**Fig. 4 Engine Oil Viscosity Recommendation—
Diesel Engines**

DESCRIPTION - ENGINE OIL

WARNING: NEW OR USED ENGINE OIL CAN BE IRRITATING TO THE SKIN. AVOID PROLONGED OR REPEATED SKIN CONTACT WITH ENGINE OIL. CONTAMINANTS IN USED ENGINE OIL, CAUSED BY INTERNAL COMBUSTION, CAN BE HAZARDOUS TO YOUR HEALTH. THOROUGHLY WASH EXPOSED SKIN WITH SOAP AND WATER. DO NOT WASH SKIN WITH GASOLINE, DIESEL FUEL, THINNER, OR SOLVENTS, HEALTH PROBLEMS CAN RESULT. DO NOT POLLUTE, DISPOSE OF USED ENGINE OIL PROPERLY. CONTACT YOUR DEALER OR GOVERNMENT AGENCY FOR LOCATION OF COLLECTION CENTER IN YOUR AREA.

API SERVICE GRADE CERTIFIED

Use an engine oil that is API Service Grade Certified. MOPAR® provides engine oils that conform to this service grade.

SAE VISCOSITY

An SAE viscosity grade is used to specify the viscosity of engine oil. Use only engine oils with multiple viscosities such as 5W-30 or 10W-30. These oils are specified with a dual SAE viscosity grade which indicates the cold-to-hot temperature viscosity range. Select an engine oil that is best suited to your particular temperature range and variation (Fig. 5).

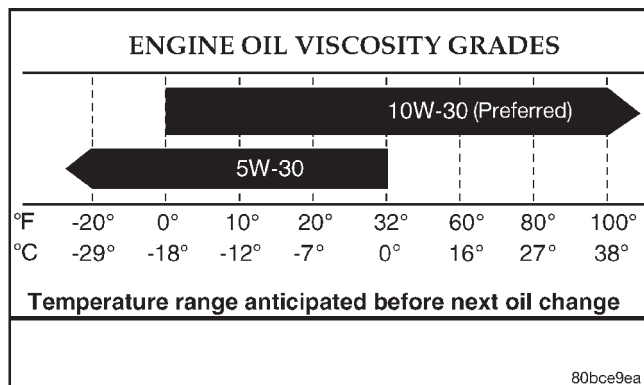


Fig. 5 Temperature/Engine Oil Viscosity

ENERGY CONSERVING OIL

An Energy Conserving type oil is recommended for gasoline engines. The designation of ENERGY CONSERVING is located on the label of an engine oil container.

CONTAINER IDENTIFICATION

Standard engine oil identification notations have been adopted to aid in the proper selection of engine oil. The identifying notations are located on the label of engine oil plastic bottles and the top of engine oil cans (Fig. 6).



9400-9

Fig. 6 API Symbol

DESCRIPTION - AXLE LUBRICATION

A multi-purpose, hypoid gear lubricant which conforms to the following specifications should be used. Mopar Hypoid Gear Lubricant conforms to these specifications.

NOTE: Trac-lok® and Powr-lok® equipped axles require a friction modifier be added to the lubricant.

FRONT AXLE

- The lubricant should have MIL-L-2105C and API GL 5 quality specifications.
- Lubricant is a thermally stable SAE 80W90.

REAR AXLE

- The lubricant should have MIL-L-2105C and API GL 5 quality specifications.
- Lubricant is a thermally stable SAE 90W.

DESCRIPTION - TRANSFER CASE - NV241

Recommended lubricant for the NV241 transfer case is Mopar® ATF+4, type 9602, Automatic Transmission Fluid.

DESCRIPTION - MANUAL TRANSMISSION

Mopar® Manual Transmission Lubricant is recommended or equivalent for use in the manual transmissions.

FLUID TYPES (Continued)

DESCRIPTION - AUTOMATIC TRANSMISSION FLUID

NOTE: Refer to the maintenance schedules in this group for the recommended maintenance (fluid/filter change) intervals for this transmission.

NOTE: Refer to Service Procedures in this group for fluid level checking procedures.

Mopar® ATF +4, type 9602, Automatic Transmission Fluid is the recommended fluid for DaimlerChrysler automatic transmissions.

Dexron II fluid IS NOT recommended. Clutch chatter can result from the use of improper fluid.

Mopar® ATF +4, type 9602, Automatic Transmission Fluid when new is red in color. The ATF is dyed red so it can be identified from other fluids used in the vehicle such as engine oil or antifreeze. The red color is not permanent and is not an indicator of fluid condition. As the vehicle is driven, the ATF will begin to look darker in color and may eventually become brown. **This is normal.** A dark brown/black fluid accompanied with a burnt odor and/or deterioration in shift quality may indicate fluid deterioration or transmission component failure.

FLUID ADDITIVES

DaimlerChrysler strongly recommends against the addition of any fluids to the transmission, other than those automatic transmission fluids listed above. Exceptions to this policy are the use of special dyes to aid in detecting fluid leaks.

Various “special” additives and supplements exist that claim to improve shift feel and/or quality. These additives and others also claim to improve converter clutch operation and inhibit overheating, oxidation, varnish, and sludge. These claims have not been supported to the satisfaction of DaimlerChrysler and these additives **must not be used.** The use of transmission “sealers” should also be avoided, since they may adversely affect the integrity of transmission seals.

OPERATION - AUTOMATIC TRANSMISSION FLUID

The automatic transmission fluid is selected based upon several qualities. The fluid must provide a high level of protection for the internal components by providing a lubricating film between adjacent metal components. The fluid must also be thermally stable so that it can maintain a consistent viscosity through a large temperature range. If the viscosity stays constant through the temperature range of operation,

transmission operation and shift feel will remain consistent. Transmission fluid must also be a good conductor of heat. The fluid must absorb heat from the internal transmission components and transfer that heat to the transmission case.

FLUID CAPACITIES**SPECIFICATIONS****FLUID CAPACITIES**

DESCRIPTION	SPECIFICATION
FUEL TANK	
2500 Series Club Cab and Quad Cab with 6.5' Short Box	129 L (34 gal.)*****
All 8' Long Box	132 L (35 gal.)*****
All Cab/Chassis Models	132 L (35 gal.)*****
ENGINE OIL WITH FILTER	
5.9L	4.7 L (5.0 qts.)
8.0L	6.6 L (7.0 qts.)
5.9L DIESEL	10.4 L (11.0 qts.)
COOLING SYSTEM	
5.9L	19 L (20 qts.)****
8.0L	24.5 L (26.0 qts.)****
5.9L DIESEL	22.7 L (24.0 qts.)****
POWER STEERING	
Power steering fluid capacities are dependent on engine/chassis options as well as steering gear/cooler options. Depending on type and size of internal cooler, length and inside diameter of cooler lines, or use of an auxiliary cooler, these capacities may vary. Refer to 19, Steering for proper fill and bleed procedures.	
AUTOMATIC TRANSMISSION	
Service Fill - 46RE	3.8 L (4.0 qts.)
O-haul - 46RE	9-9.5L (19-20 pts.)*
Service Fill - 47RE	3.8 L (4.0 qts.)
O-haul - 47RE	14-16 L (29-33 pts.)*

FLUID CAPACITIES (Continued)

DESCRIPTION	SPECIFICATION
Dry fill capacity Depending on type and size of internal cooler, length and inside diameter of cooler lines, or use of an auxiliary cooler, these figures may vary. (Refer to 21 - TRANSMISSION/TRANSAXLE/AUTOMATIC/FLUID - STANDARD PROCEDURE)	
MANUAL TRANSMISSION	
NV4500	3.8 L (8.0 pts.)
NV5600	4.5 L (9.5 pts.)
TRANSFER CASE	
NV241	2.18 L (4.61 pts.)
NV241 HD	3.08 L (6.51 pts.)
FRONT AXLE ± .03 L (1 oz)	
248-RBI (Model 60)	4.0 L (8.5 pts.)
REAR AXLE ± .03 L (1 oz)	
248-RBI (Model 60) 2WD	2.9 L (6.1 pts.)
248-RBI (Model 60) 4WD	3.4 L (7.2 pts.)
267-RBI (Model 70) 2WD	3.3 L (7.0 pts.)
267-RBI (Model 70) 4WD	3.6 L (7.6 pts.)
286-RBI (Model 80) 2WD	3.2 L (6.8 pts.)
286-RBI (Model 80) 4WD	4.8 L (10.1 pts.)
REAR AXLE - LIMITED SLIP DIFFERENTIAL ± .03 L (1 oz)	
248-RBI (Model 60) 2WD	2.8 L (5.9 pts.)
248-RBI (Model 60) 4WD	3.2 L (6.8 pts.)
267-RBI (Model 70) 2WD	3.1 L (6.5 pts.)
267-RBI (Model 70) 4WD	3.4 L (7.2 pts.)
286-RBI (Model 80) 2WD	3.0 L (6.3 pts.)
286-RBI (Model 80) 4WD	4.5 L (9.5 pts.)
FRICTION MODIFIER ± .03 L (1 oz)	
248-RBI (Model 60) 2WD	0.15 L (5 oz)
248-RBI (Model 60) 4WD	0.18 L (6 oz)
267-RBI (Model 70) 2WD	0.21 L (7 oz)

DESCRIPTION	SPECIFICATION
267-RBI (Model 70) 4WD	0.24 L (8 oz)
286-RBI (Model 80) 2WD	0.21 L (7 oz)
286-RBI (Model 80) 4WD	0.30 L (10 oz)
**** Includes 0.9L (1.0 qts.) for coolant reservoir.	
*****Nominal refill capacities are shown. A variation may be observed from vehicle to vehicle due to manufacturing tolerance and refill procedure.	

MAINTENANCE SCHEDULES

DESCRIPTION

"Maintenance Schedule Information not included in this section, is located in the appropriate Owner's Manual."

JUMP STARTING

STANDARD PROCEDURE - JUMP STARTING

WARNING: REVIEW ALL SAFETY PRECAUTIONS AND WARNINGS IN GROUP 8A, BATTERY/STARTING/CHARGING SYSTEMS DIAGNOSTICS.

- DO NOT JUMP START A FROZEN BATTERY, PERSONAL INJURY CAN RESULT.
 - DO NOT JUMP START WHEN MAINTENANCE FREE BATTERY INDICATOR DOT IS YELLOW OR BRIGHT COLOR.
 - DO NOT JUMP START A VEHICLE WHEN THE BATTERY FLUID IS BELOW THE TOP OF LEAD PLATES.
 - DO NOT ALLOW JUMPER CABLE CLAMPS TO TOUCH EACH OTHER WHEN CONNECTED TO A BOOSTER SOURCE.
 - DO NOT USE OPEN FLAME NEAR BATTERY.
 - REMOVE METALLIC JEWELRY WORN ON HANDS OR WRISTS TO AVOID INJURY BY ACCIDENTAL ARCING OF BATTERY CURRENT.
 - WHEN USING A HIGH OUTPUT BOOSTING DEVICE, DO NOT ALLOW BATTERY VOLTAGE TO EXCEED 16 VOLTS. REFER TO INSTRUCTIONS PROVIDED WITH DEVICE BEING USED.
- FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

CAUTION: When using another vehicle as a booster, do not allow vehicles to touch. Electrical systems can be damaged on either vehicle.

JUMP STARTING (Continued)

TO JUMP START A DISABLED VEHICLE:

(1) Raise hood on disabled vehicle and visually inspect engine compartment for:

- Battery cable clamp condition, clean if necessary.
- Frozen battery.
- Yellow or bright color test indicator, if equipped.
- Low battery fluid level.
- Generator drive belt condition and tension.
- Fuel fumes or leakage, correct if necessary.

CAUTION: If the cause of starting problem on disabled vehicle is severe, damage to booster vehicle charging system can result.

(2) When using another vehicle as a booster source, park the booster vehicle within cable reach. Turn off all accessories, set the parking brake, place the automatic transmission in PARK or the manual transmission in NEUTRAL and turn the ignition OFF.

(3) On disabled vehicle, place gear selector in park or neutral and set park brake. Turn off all accessories.

(4) Connect jumper cables to booster battery. RED clamp to positive terminal (+). BLACK clamp to negative terminal (-). DO NOT allow clamps at opposite end of cables to touch, electrical arc will result. Review all warnings in this procedure.

(5) On disabled vehicle, connect RED jumper cable clamp to positive (+) terminal. Connect BLACK jumper cable clamp to engine ground as close to the ground cable attaching point as possible (Fig. 7) and (Fig. 8).

(6) Start the engine in the vehicle which has the booster battery, let the engine idle a few minutes, then start the engine in the vehicle with the discharged battery.

CAUTION: Do not crank starter motor on disabled vehicle for more than 15 seconds, starter will overheat and could fail.

(7) Allow battery in disabled vehicle to charge to at least 12.4 volts (75% charge) before attempting to start engine. If engine does not start within 15 seconds, stop cranking engine and allow starter to cool (15 min.), before cranking again.

DISCONNECT CABLE CLAMPS AS FOLLOWS:

- Disconnect BLACK cable clamp from engine ground on disabled vehicle.

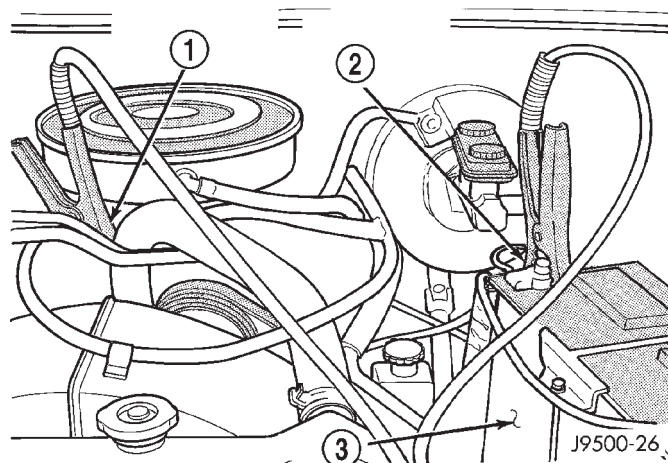


Fig. 7 Jumper Cable Clamp Connections—Gas Engine

- 1 - NEGATIVE OR GROUND CABLE CONNECTION
2 - POSITIVE CABLE CONNECTION
3 - BATTERY

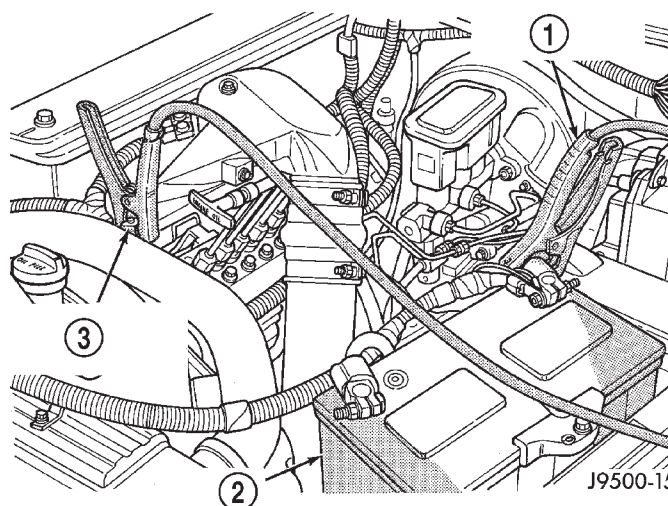


Fig. 8 Jumper Cable Clamp Connections—Diesel Engine

- 1 - POSITIVE CABLE CONNECTION
2 - BATTERY
3 - NEGATIVE OR GROUND CABLE CONNECTION

- When using a Booster vehicle, disconnect BLACK cable clamp from battery negative terminal. Disconnect RED cable clamp from battery positive terminal.

- Disconnect RED cable clamp from battery positive terminal on disabled vehicle.

HOISTING

STANDARD PROCEDURE - HOISTING

Refer to the Owner's Manual for emergency vehicle lifting procedures.

WARNING: THE HOISTING AND JACK LIFTING POINTS PROVIDED ARE FOR A COMPLETE VEHICLE. WHEN A CHASSIS OR DRIVETRAIN COMPONENT IS REMOVED FROM A VEHICLE, THE CENTER OF GRAVITY IS ALTERED MAKING SOME HOISTING CONDITIONS UNSTABLE. PROPERLY SUPPORT (Fig. 9) OR SECURE VEHICLE TO HOISTING DEVICE WHEN THESE CONDITIONS EXIST.

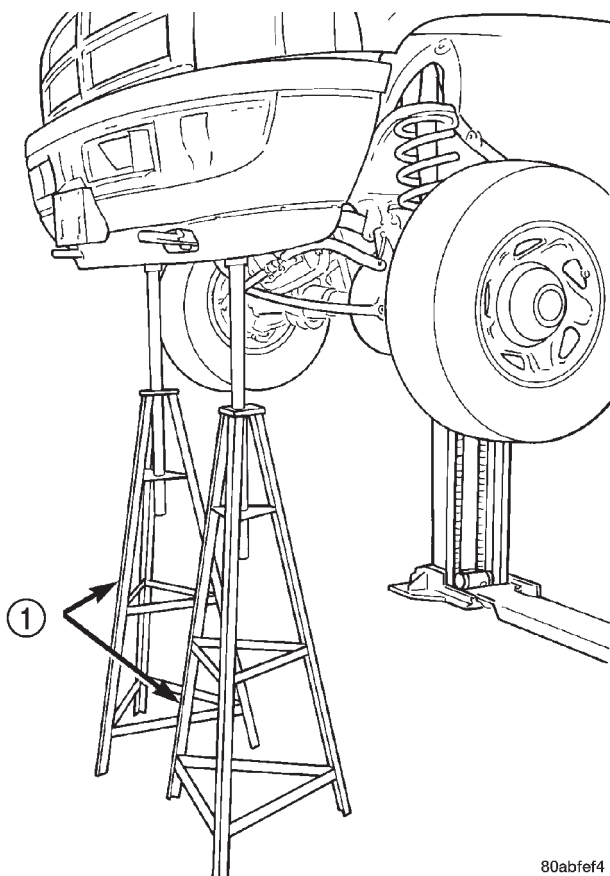


Fig. 9 Safety Stands

1 - SAFETY STANDS

FLOOR JACK

When properly positioned, a floor jack can be used to lift a vehicle (Fig. 10). Support the vehicle in the raised position with jack stands at the front and rear ends of the frame rails (Fig. 9).

CAUTION: Do not lift vehicle with a floor jack positioned under:

- An axle tube.
- A body side sill.
- A steering linkage component.
- A drive shaft.
- The engine or transmission oil pan.
- The fuel tank.
- A front suspension arm.

NOTE: Use the correct frame rail lifting locations only (Fig. 11).

HOIST

A vehicle can be lifted with:

- A single-post, frame-contact hoist.
- A twin-post, chassis hoist.
- A ramp-type, drive-on hoist.

NOTE: When a frame-contact type hoist is used, verify that the lifting pads are positioned properly (Fig. 10). The forward lifting pads should be positioned a minimum of 5 inches forward of the cross-member bolt access holes (Fig. 11).

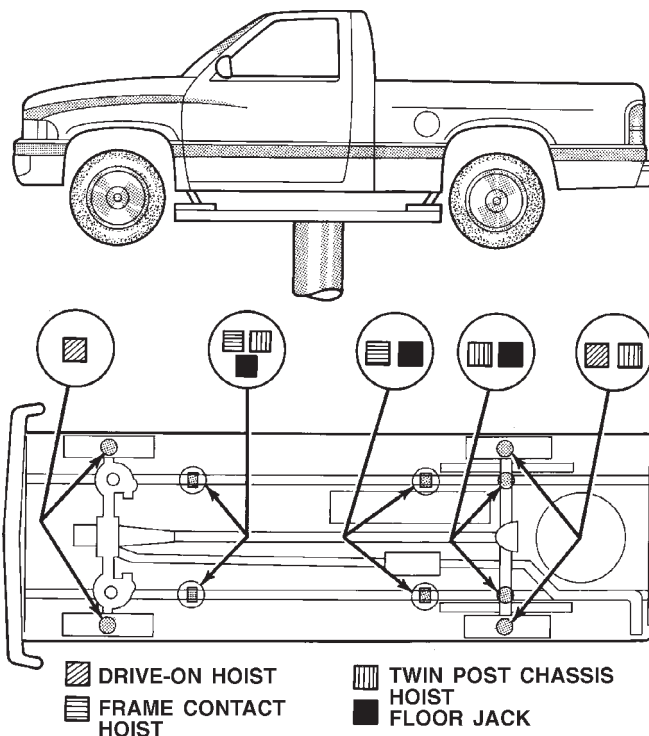
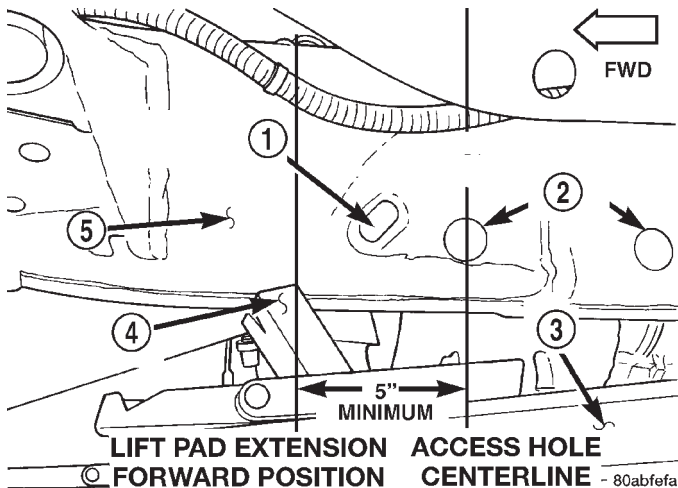


Fig. 10 Vehicle Lifting Locations

J9500-5

HOISTING (Continued)

**Fig. 11 Front Lift Pad Location**

- 1 - SHIPPING TIE DOWN SLOT
- 2 - CROSSMEMBER BOLT ACCESS HOLE
- 3 - LIFTARM
- 4 - LIFT PAD EXTENSION
- 5 - FRAME RAIL

TOWING

STANDARD PROCEDURE - TOWING

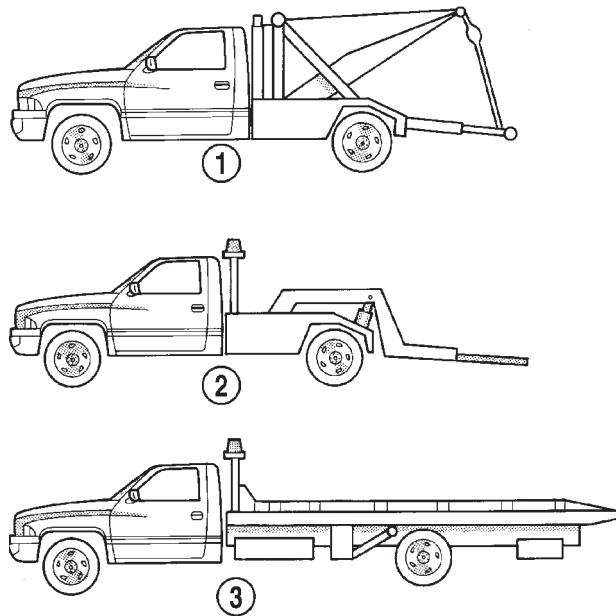
A vehicle equipped with SAE approved sling-type towing equipment can be used to tow all vehicles. When towing a 4WD vehicle using a wheel-lift towing device, use tow dollies under the opposite end of the vehicle. A vehicle with flat-bed device can also be used to transport a disabled vehicle (Fig. 12).

A wooden crossbeam may be required for proper connection when using the sling-type, front-end towing method.

SAFETY PRECAUTIONS

CAUTION: The following safety precautions must be observed when towing a vehicle:

- Secure loose and protruding parts.
- Always use a safety chain system that is independent of the lifting and towing equipment.
- Do not allow towing equipment to contact the disabled vehicle's fuel tank.
- Do not allow anyone under the disabled vehicle while it is lifted by the towing device.
- Do not allow passengers to ride in a vehicle being towed.
- Always observe state and local laws regarding towing regulations.
- Do not tow a vehicle in a manner that could jeopardize the safety of the operator, pedestrians or other motorists.



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Fig. 12 Tow Vehicles With Approved Equipment

- 1 - SLING TYPE
- 2 - WHEEL LIFT
- 3 - FLAT BED

- Do not attach tow chains, T-hooks, J-hooks, or a tow sling to a bumper, steering linkage, drive shafts or a non-reinforced frame hole.

- Do not tow a heavily loaded vehicle. Damage to the cab, cargo box or frame may result. Use a flatbed device to transport a loaded vehicle.

GROUND CLEARANCE

CAUTION: If vehicle is towed with wheels removed, install lug nuts to retain brake drums or rotors.

A towed vehicle should be raised until lifted wheels are a minimum 100 mm (4 in) from the ground. Be sure there is adequate ground clearance at the opposite end of the vehicle, especially when towing over rough terrain or steep rises in the road. If necessary, remove the wheels from the lifted end of the vehicle and lower the vehicle closer to the ground, to increase the ground clearance at the opposite end of the vehicle. Install lug nuts on wheel attaching studs to retain brake drums or rotors.

RAMP ANGLE

If a vehicle with flat-bed towing equipment is used, the approach ramp angle should not exceed 15 degrees.

TOWING (Continued)

TOWING WHEN KEYS ARE NOT AVAILABLE

When the vehicle is locked and keys are not available, use a flat bed hauler. A Wheel-lift or Sling-type device can be used on 4WD vehicles provided **all the wheels are lifted off the ground using tow dollies.**

FOUR-WHEEL-DRIVE VEHICLE TOWING

Chrysler Corporation recommends that a vehicle be transported on a flat-bed device. A Wheel-lift or Sling-type device can be used provided **all the wheels are lifted off the ground using tow dollies.**

WARNING: WHEN TOWING A DISABLED VEHICLE AND THE DRIVE WHEELS ARE SECURED IN A WHEEL LIFT OR TOW DOLLIES, ENSURE THE TRANSMISSION IS IN THE PARK POSITION (AUTOMATIC TRANSMISSION) OR A FORWARD DRIVE GEAR (MANUAL TRANSMISSION).

CAUTION: Many vehicles are equipped with air dams, spoilers, and/or ground effect panels. To avoid component damage, a wheel-lift towing vehicle or a flat-bed hauling vehicle is recommended.

