

# LUBRICATION & MAINTENANCE

## TABLE OF CONTENTS

|                                         | page |                                          | page |
|-----------------------------------------|------|------------------------------------------|------|
| <b>INTERNATIONAL SYMBOLS</b>            |      | DESCRIPTION - MANUAL TRANSMISSION . . .  | 4    |
| DESCRIPTION . . . . .                   | 1    | DESCRIPTION - AUTOMATIC                  |      |
| <b>FLUID TYPES</b>                      |      | TRANSMISSION FLUID . . . . .             | 4    |
| DESCRIPTION                             |      | OPERATION - AUTOMATIC TRANSMISSION       |      |
| DESCRIPTION - FUEL REQUIREMENTS -       |      | FLUID . . . . .                          | 5    |
| DIESEL ENGINE . . . . .                 | 1    | <b>FLUID CAPACITIES</b>                  |      |
| DESCRIPTION - ENGINE OIL AND            |      | SPECIFICATIONS                           |      |
| LUBRICANTS . . . . .                    | 2    | FLUID CAPACITIES . . . . .               | 5    |
| DESCRIPTION - POWER STEERING FLUID . .  | 3    | <b>MAINTENANCE SCHEDULES</b>             |      |
| DESCRIPTION - ENGINE COOLANT . . . . .  | 3    | DESCRIPTION . . . . .                    | 6    |
| DESCRIPTION - TRANSFER CASE - NV241     |      | <b>JUMP STARTING</b>                     |      |
| GENII . . . . .                         | 4    | STANDARD PROCEDURE - JUMP STARTING . . . | 13   |
| DESCRIPTION - TRANSFER CASE - NV271 . . | 4    | <b>HOISTING</b>                          |      |
| DESCRIPTION - TRANSFER CASE - NV243 . . | 4    | STANDARD PROCEDURE - HOISTING . . . . .  | 14   |
| DESCRIPTION - TRANSFER CASE - NV273 . . | 4    | <b>TOWING</b>                            |      |
| DESCRIPTION - AXLE . . . . .            | 4    | STANDARD PROCEDURE - TOWING . . . . .    | 15   |

## INTERNATIONAL SYMBOLS

### DESCRIPTION

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

|                                                                                     |                              |                                                                                     |                         |
|-------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|-------------------------|
|  | ENGINE OIL                   |  | BRAKE FLUID             |
|  | AUTOMATIC TRANSMISSION FLUID |  | POWER STEERING FLUID    |
|  | ENGINE COOLANT               |  | WINDSHIELD WASHER FLUID |

8097ddb

**Fig. 1 INTERNATIONAL SYMBOLS**

## FLUID TYPES

### DESCRIPTION

#### 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.

## FLUID TYPES (Continued)

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 OIL AND LUBRICANTS

**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.**

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.

Only lubricants bearing designations defined by the following organization should be used.

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

## API SERVICE GRADE CERTIFIED

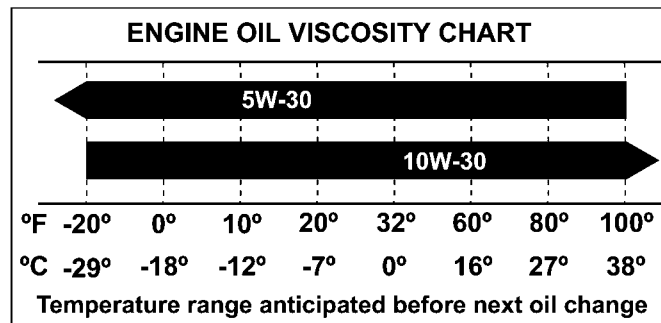
Use an engine oil that is API Certified. MOPAR® provides engine oils, that meet or exceed this requirement.

## 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 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. 2).

## 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.



80990199

**Fig. 2 TEMPERATURE/ENGINE OIL VISCOSITY 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 front label of engine oil plastic bottles and the top of engine oil cans (Fig. 3).

This symbol means that the oil has been certified by the American Petroleum Institute (API). DaimlerChrysler only recommend API Certified engine oils. Use Mopar® engine oil or equivalent.



9400-9

**Fig. 3 API SYMBOL**

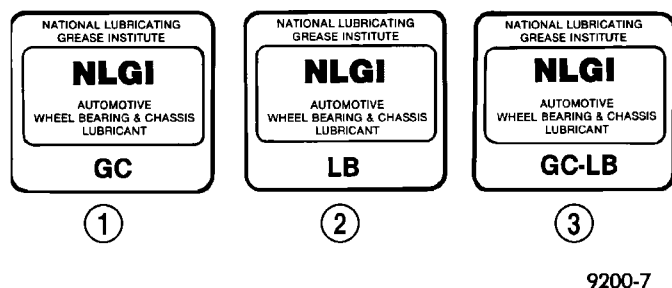
## GEAR LUBRICANTS

SAE ratings also apply to multigrade gear lubricants. In addition, API classification defines the lubricants usage. Such as API GL-5 and SAE 75W-90.

## LUBRICANTS AND GREASES

Lubricating grease is rated for quality and usage by the NLGI. All approved products have the NLGI symbol (Fig. 4) on the label. At the bottom of the NLGI symbol is the usage and quality identification letters. Wheel bearing lubricant is identified by the letter "G". Chassis lubricant is identified by the letter "L". The letter following the usage letter indicates the quality of the lubricant. The following symbols indicate the highest quality.

## FLUID TYPES (Continued)

**Fig. 4 NLGI SYMBOL**

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

**SPECIALIZED LUBRICANTS AND OILS**

Some maintenance or repair procedures may require the use of specialized lubricants or oils. Consult the appropriate sections in this manual for the correct application of these lubricants.

**DESCRIPTION - POWER STEERING FLUID**

Mopar® ATF +4, Automatic Transmission Fluid is required in the power steering system. Substitute fluids can induce power steering system failure.

Mopar® ATF +4, 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.** ATF+4 also has a unique odor that may change with age. Consequently, odor and color cannot be used to indicate the fluid condition or the need for a fluid change.

**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.**

**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

## FLUID TYPES (Continued)

**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 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 - TRANSFER CASE - NV241 GENII

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

## DESCRIPTION - TRANSFER CASE - NV271

Recommended lubricant for the NV271 transfer case is Mopar® ATF +4, Automatic Transmission Fluid.

## DESCRIPTION - TRANSFER CASE - NV243

Recommended lubricant for the NV243 transfer case is Mopar® ATF +4, Automatic Transmission Fluid.

## DESCRIPTION - TRANSFER CASE - NV273

Recommended lubricant for the NV273 transfer case is Mopar® ATF +4, Automatic Transmission Fluid.

## DESCRIPTION - AXLE

**NOTE:** DaimlerChrysler recommends using Mopar® lubricants or lubricants of equal quality.

## FRONT AXLE

- C205F - Mopar® Gear Lubricant 75W-90
- 9 1/4 AA - Mopar® Synthetic Gear Lubricant 75W-90

## REAR AXLE

- 9 1/4 - Mopar® Synthetic Gear Lubricant 75W-140
- 10 1/2 AA - Mopar® Synthetic Gear Lubricant 75W-90
- 11 1/2 AA - Mopar® Synthetic Gear Lubricant 75W-90

**NOTE:** Trac-Lok® differentials require Limited Slip Additive in the lubricant. Trac-Rite™ differentials DO NOT require Limited Slip Additive.

## DESCRIPTION - MANUAL TRANSMISSION

**NOTE:** DaimlerChrysler recommends using Mopar® lubricants or lubricants of equal quality.

- NV3500 - Mopar® Manual Transmission Lubricant
- NV4500 - Mopar® Synthetic 75W85 Manual Transmission Lubricant
- NV5600 - Mopar® Manual Transmission Lubricant

## DESCRIPTION - AUTOMATIC TRANSMISSION FLUID

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

Mopar® ATF +4, 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, 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.** ATF+4 also has a unique odor that may change with age. Consequently, odor and color cannot be used to indicate the fluid condition or the need for a fluid change.

## FLUID TYPES (Continued)

## 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

| 2DESCRIPTION           | SPECIFICATION      |
|------------------------|--------------------|
| FUEL TANK              |                    |
| Short Box (Lt. Duty)   | 98 L (26 gal.)*    |
| Long Box (Lt. Duty)    | 132 L (35 gal.)*   |
| ENGINE OIL WITH FILTER |                    |
| 3.7L                   | 4.7 L (5.0 qts.)   |
| 4.7L                   | 5.6 L (6.0 qts.)   |
| 5.7L                   | 6.6 L (7.0 qts.)   |
| 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.) |

| 2DESCRIPTION                                                                                                                                                                                                                                                                                                                      | SPECIFICATION                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| COOLING SYSTEM                                                                                                                                                                                                                                                                                                                    |                                                    |
| 3.7L                                                                                                                                                                                                                                                                                                                              | 15.4 L (16.2 qts.):**                              |
| 4.7L                                                                                                                                                                                                                                                                                                                              | 15.4 L (16.2 qts.):**                              |
| 5.7L                                                                                                                                                                                                                                                                                                                              | 15.4 L (16.2 qts.):**                              |
| 5.9L                                                                                                                                                                                                                                                                                                                              | 15.5 L (16.3 qts.):**                              |
| 8.0L                                                                                                                                                                                                                                                                                                                              | 24L (24.3 qts.):**                                 |
| 5.9L Diesel Engine                                                                                                                                                                                                                                                                                                                | 28L (29.5 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 - 45RFE/<br>545RFE                                                                                                                                                                                                                                                                                                   | 4X2 - 5.2 L (11.0 pts.)<br>4X4 - 6.2 L (13.0 pts.) |
| O-haul - 45RFE/545RFE                                                                                                                                                                                                                                                                                                             | 14-16 L (29-33 pts.) ◇                             |
| ◇ 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                                                                                                                                                                                                                                                                                                               |                                                    |
| NV3500 4X2                                                                                                                                                                                                                                                                                                                        | 2.3 L (4.8 pts.)                                   |
| NV3500 4X4                                                                                                                                                                                                                                                                                                                        | 2.0 L (4.2 pts.)                                   |
| NV4500                                                                                                                                                                                                                                                                                                                            | 3.8 L (8.0 pts.)                                   |
| NV5600                                                                                                                                                                                                                                                                                                                            | 4.5 L (9.5 pts.)                                   |
| TRANSFER CASE                                                                                                                                                                                                                                                                                                                     |                                                    |
| NV241 GENII                                                                                                                                                                                                                                                                                                                       | 1.6 L (3.4 pts.)                                   |
| NV243                                                                                                                                                                                                                                                                                                                             | 1.6 L (3.4 pts.)                                   |
| NV271                                                                                                                                                                                                                                                                                                                             | 1.89 L (4.0 pts.)                                  |
| NV273                                                                                                                                                                                                                                                                                                                             | 1.89 L (4.0 pts.)                                  |
| FRONT AXLE ± .03 L (1 oz)                                                                                                                                                                                                                                                                                                         |                                                    |
| C205F                                                                                                                                                                                                                                                                                                                             | 1.66 L (3.5 pts.)                                  |
| 9 1/4 AA                                                                                                                                                                                                                                                                                                                          | 2.25 L (4.75 pts.)                                 |
| REAR AXLE ± .03 L (1 oz)                                                                                                                                                                                                                                                                                                          |                                                    |
| 9 1/4                                                                                                                                                                                                                                                                                                                             | 2.32 L (4.9 pts.)***                               |
| 10 1/2 AA                                                                                                                                                                                                                                                                                                                         | 2.25 L (4.75 pts.)                                 |
| 11 1/2 AA                                                                                                                                                                                                                                                                                                                         | 3.62 L (7.65 pts.)                                 |
| *** With Trac-Lok add 118 ml (4 oz.) of Limited Slip Additive.                                                                                                                                                                                                                                                                    |                                                    |
| ** 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.

There are two maintenance schedules that show the **required** service for your vehicle.

First is Schedule **"B"**. It is for vehicles that are operated under the conditions that are listed below and at the beginning of the schedule.

- Day or night temperatures are below 0° C (32° F).
- Stop and go driving.
- Extensive engine idling.
- Driving in dusty conditions.
- Short trips of less than 16 km (10 miles).
- More than 50% of your driving is at sustained high speeds during hot weather, above 32° C (90° F).
- Trailer towing.
- Taxi, police, or delivery service (commercial service).
- Off-road or desert operation.
- **If equipped for and operating with E-85 (ethanol) fuel.**

**NOTE: Most vehicles are operated under the conditions listed for Schedule "B".**

Second is Schedule **"A"**. It is for vehicles that are not operated under any of the conditions listed under Schedule "B".

Use the schedule that best describes your driving conditions. Where time and mileage are listed, follow the interval that occurs first.

**CAUTION: Failure to perform the required maintenance items may result in damage to the vehicle.**

#### *At Each Stop for Fuel*

- Check the engine oil level about 5 minutes after a fully warmed engine is shut off. Checking the oil level while the vehicle is on level ground will improve the accuracy of the oil level reading. Add oil only when the level is at or below the ADD or MIN mark.
- Check the windshield washer solvent and add if required.

#### *Once a Month*

- Check tire pressure and look for unusual wear or damage.
- Inspect the battery and clean and tighten the terminals as required.
- Check the fluid levels of coolant reservoir, brake master cylinder, power steering and transmission and add as needed.
- Check all lights and all other electrical items for correct operation.

#### *At Each Oil Change*

- Change the engine oil filter.
- Inspect the exhaust system.
- Inspect the brake hoses.
- Inspect the CV joints (if equipped) and front suspension components.
- Check the automatic transmission fluid level.
- Check the manual transmission fluid level.
- Check the coolant level, hoses, and clamps.
- Rotate the tires at each oil change interval shown on Schedule "A" 10 000 km (6,000 miles) or every other interval shown on Schedule "B" 10 000 km (6,000 miles).

#### *Schedule "B"*

Follow schedule "B" if you usually operate your vehicle under one or more of the following conditions.

- Day or night temperatures are below 0° C (32° F).
- Stop and go driving.
- Extensive engine idling.
- Driving in dusty conditions.
- Short trips of less than 16 km (10 miles).
- More than 50% of your driving is at sustained high speeds during hot weather, above 32° C (90° F).
- Trailer towing.
- Taxi, police, or delivery service (commercial service).
- Off-road or desert operation.
- **If equipped for and operating with E-85 (ethanol) fuel.**

## MAINTENANCE SCHEDULES (Continued)

| <b>Miles<br/>(Kilometers)</b>                                   | <b>3,000<br/>(5 000)</b> | <b>6,000<br/>(10 000)</b> | <b>9,000<br/>(14 000)</b> | <b>12,000<br/>(19 000)</b> | <b>15,000<br/>(24 000)</b> |
|-----------------------------------------------------------------|--------------------------|---------------------------|---------------------------|----------------------------|----------------------------|
| Change engine oil and engine oil filter.                        | X                        | X                         | X                         | X                          | X                          |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.       |                          | X                         |                           | X                          |                            |
| Change rear axle fluid.                                         |                          |                           |                           |                            | X                          |
| Change front axle fluid (4X4).                                  |                          |                           |                           |                            | X                          |
| Inspect brake linings.                                          |                          |                           |                           | X                          |                            |
| <b>Inspect engine air cleaner filter, replace if necessary.</b> |                          |                           |                           |                            | X                          |

| <b>Miles<br/>(Kilometers)</b>                                                                    | <b>18,000<br/>(29 000)</b> | <b>21,000<br/>(34 000)</b> | <b>24,000<br/>(38 000)</b> | <b>27,000<br/>(43 000)</b> | <b>30,000<br/>(48 000)</b> |
|--------------------------------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Change engine oil and engine oil filter.                                                         | X                          | X                          | X                          | X                          | X                          |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.                                        | X                          |                            | X                          |                            | X                          |
| Change rear axle fluid.                                                                          |                            |                            |                            |                            | X                          |
| Change front axle fluid (4X4).                                                                   |                            |                            |                            |                            | X                          |
| Inspect brake linings.                                                                           |                            |                            | X                          |                            |                            |
| <b>Inspect engine air cleaner filter, replace if necessary.</b>                                  |                            |                            |                            |                            | X                          |
| <b>Replace spark plugs.</b>                                                                      |                            |                            |                            |                            | X                          |
| <b>Inspect PCV valve, replace as necessary.</b>                                                  |                            |                            |                            |                            | X*                         |
| Drain and refill automatic transmission fluid, change filter and adjust bands (46RE/47RE/48RE).‡ |                            |                            |                            |                            | X                          |
| Drain and refill automatic transmission fluid and change main sump filter (45RFE/545RFE only).‡  |                            |                            |                            |                            | X                          |

| <b>Miles<br/>(Kilometers)</b>                                   | <b>33,000<br/>(53 000)</b> | <b>36,000<br/>(58 000)</b> | <b>39, 000<br/>(62 000)</b> | <b>42,000<br/>(67 000)</b> | <b>45,000<br/>(72 000)</b> |
|-----------------------------------------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|
| Change engine oil and engine oil filter.                        | X                          | X                          | X                           | X                          | X                          |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.       |                            | X                          |                             | X                          |                            |
| Change rear axle fluid.                                         |                            |                            |                             |                            | X                          |
| Change front axle fluid (4X4).                                  |                            |                            |                             |                            | X                          |
| Inspect brake linings.                                          |                            | X                          |                             |                            |                            |
| <b>Inspect engine air cleaner filter, replace if necessary.</b> |                            |                            |                             |                            | X                          |

**0 - 8 LUBRICATION & MAINTENANCE**

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## MAINTENANCE SCHEDULES (Continued)

| <b>Miles<br/>(Kilometers)</b>                                                                   | <b>48,000<br/>(77 000)</b> | <b>51,000<br/>(82 000)</b> | <b>54,000<br/>(86 000)</b> | <b>57,000<br/>(91 000)</b> | <b>60,000<br/>(96 000)</b> |
|-------------------------------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Change engine oil and engine oil filter.                                                        | X                          | X                          | X                          | X                          | X                          |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.                                       | X                          |                            | X                          |                            | X                          |
| Drain and refill transfer case fluid.                                                           |                            |                            |                            |                            | X                          |
| Change rear axle fluid.                                                                         |                            |                            |                            |                            | X                          |
| Change front axle fluid (4X4).                                                                  |                            |                            |                            |                            | X                          |
| Inspect brake linings.                                                                          | X                          |                            |                            |                            | X                          |
| <b>Inspect engine air cleaner filter, replace if necessary.</b>                                 |                            |                            |                            |                            | X                          |
| <b>Replace spark plugs.</b>                                                                     |                            |                            |                            |                            | X                          |
| <b>Replace ignition cables (5.7L/5.9L/8.0L).</b>                                                |                            |                            |                            |                            | X                          |
| <b>Inspect PCV valve, replace as necessary.</b>                                                 |                            |                            |                            |                            | X*                         |
| Drain and refill automatic transmission fluid, change filter and adjust bands (46RE/47RE/48RE). |                            |                            |                            |                            | X                          |
| Drain and refill automatic transmission fluid and change main sump filter (45RFE/545RFE only).  |                            |                            |                            |                            | X                          |

| <b>Miles<br/>(Kilometers)</b>                                                       | <b>63,000<br/>(101 000)</b> | <b>66,000<br/>(106 000)</b> | <b>69,000<br/>(110 000)</b> | <b>72,000<br/>(115 000)</b> | <b>75,000<br/>(120 000)</b> |
|-------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Change engine oil and engine oil filter.                                            | X                           | X                           | X                           | X                           |                             |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.                           |                             | X                           |                             | X                           |                             |
| <b>Inspect engine air cleaner filter.</b>                                           |                             |                             |                             |                             | X                           |
| Change rear axle fluid.                                                             |                             |                             |                             |                             | X                           |
| Change front axle fluid (4X4).                                                      |                             |                             |                             |                             | X                           |
| Inspect brake linings.                                                              |                             |                             |                             | X                           |                             |
| Inspect auto tension drive belt and replace if required (3.7L/4.7L/5.7L/5.9L/8.0L). |                             |                             |                             |                             | X                           |

**MAINTENANCE SCHEDULES (Continued)**

| <b>Miles<br/>(Kilometers)</b>                                                                                                          | <b>78,000<br/>(125 000)</b> | <b>81,000<br/>(130 000)</b> | <b>84,000<br/>(134 000)</b> | <b>87,000<br/>(139 000)</b> | <b>90,000<br/>(144 000)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Change engine oil and engine oil filter.                                                                                               | X                           | X                           | X                           | X                           | X                           |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.                                                                              | X                           |                             | X                           |                             | X                           |
| Change rear axle fluid.                                                                                                                |                             |                             |                             |                             | X                           |
| Change front axle fluid (4X4).                                                                                                         |                             |                             |                             |                             | X                           |
| Inspect brake linings.                                                                                                                 |                             |                             | X                           |                             |                             |
| <b>Inspect engine air cleaner filter, replace if necessary.</b>                                                                        |                             |                             |                             |                             | X                           |
| <b>Replace spark plugs.</b>                                                                                                            |                             |                             |                             |                             | X                           |
| <b>Inspect PCV valve, replace as necessary.</b>                                                                                        |                             |                             |                             |                             | X*                          |
| Inspect auto tension drive belt and replace if required (3.7L/4.7L/5.7L/5.9L/8.0L).                                                    |                             |                             |                             |                             | X†                          |
| Drain and refill automatic transmission fluid, change filter and adjust bands (46RE/47RE/48RE).                                        |                             |                             |                             |                             | X                           |
| Drain and refill automatic transmission fluid and change main sump and spin-on cooler return filter (if equipped) [45RFE/545RFE only]. |                             |                             |                             |                             | X                           |

| <b>Miles<br/>(Kilometers)</b>                             | <b>93,000<br/>(149 000)</b> | <b>96,000<br/>(154 000)</b> | <b>99,000<br/>(158 000)</b> | <b>100,000<br/>(160 000)</b> | <b>102,000<br/>(163 000)</b> |
|-----------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| Change engine oil and engine oil filter.                  | X                           | X                           | X                           |                              | X                            |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only. |                             | X                           |                             |                              | X                            |
| Flush and replace engine coolant.                         |                             |                             |                             | X                            |                              |
| Flush and replace Power Steering Fluid.                   |                             |                             |                             | X                            |                              |
| Inspect brake linings.                                    |                             | X                           |                             |                              |                              |

**0 - 10 LUBRICATION & MAINTENANCE**

DR

## MAINTENANCE SCHEDULES (Continued)

| <b>Miles<br/>(Kilometers)</b>                                                                   | <b>105,000<br/>(168 000)</b> | <b>108,000<br/>(173 000)</b> | <b>111,000<br/>(178 000)</b> | <b>114,000<br/>(182 000)</b> | <b>117,000<br/>(187 000)</b> | <b>120,000<br/>(192 000)</b> |
|-------------------------------------------------------------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Change engine oil and engine oil filter.                                                        | X                            | X                            | X                            | X                            | X                            | X                            |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.                                       |                              | X                            |                              | X                            |                              | X                            |
| Drain and refill transfer case fluid.                                                           |                              |                              |                              |                              |                              | X                            |
| Change rear axle fluid.                                                                         | X                            |                              |                              |                              |                              | X                            |
| Change front axle fluid (4X4).                                                                  | X                            |                              |                              |                              |                              | X                            |
| Inspect brake linings.                                                                          |                              | X                            |                              |                              |                              | X                            |
| <b>Inspect engine air cleaner filter, replace if necessary.</b>                                 | X                            |                              |                              |                              |                              | X                            |
| <b>Replace spark plugs.</b>                                                                     |                              |                              |                              |                              |                              | X                            |
| <b>Replace ignition cables (5.7L/5.9L/8.0L).</b>                                                |                              |                              |                              |                              |                              | X                            |
| <b>Inspect PCV valve, replace as necessary.</b>                                                 |                              |                              |                              |                              |                              | X*                           |
| Inspect auto tension drive belt and replace if required (3.7L/4.7L/5.7L/5.9L/8.0L).             | X‡                           |                              |                              |                              |                              | X‡                           |
| Drain and refill automatic transmission fluid, change filter and adjust bands (46RE/47RE/48RE). |                              |                              |                              |                              |                              | X                            |
| Drain and refill automatic transmission fluid and change main sump filter (45RFE/545RFE only).  |                              |                              |                              |                              |                              | X                            |

\* This maintenance is recommended by the manufacturer to the owner but is not required to maintain the emissions warranty.

‡ This maintenance is not required if previously replaced.

Inspection and service should also be performed anytime a malfunction is observed or suspected. Retain all receipts.

**MAINTENANCE SCHEDULES (Continued)**
**Schedule "A"**

| <b>Miles<br/>(Kilometers)<br/>[Months]</b>                | <b>6,000<br/>(10 000)<br/>[6]</b> | <b>12,000<br/>(19 000)<br/>[12]</b> | <b>18,000<br/>(29 000)<br/>[18]</b> | <b>24,000<br/>(38 000)<br/>[24]</b> | <b>30,000<br/>(48 000)<br/>[30]</b> |
|-----------------------------------------------------------|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Change engine oil and engine oil filter.                  | X                                 | X                                   | X                                   | X                                   | X                                   |
| Check transfer case fluid level.                          |                                   |                                     |                                     |                                     | X                                   |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only. | X                                 | X                                   | X                                   | X                                   | X                                   |
| Inspect brake linings.                                    |                                   |                                     | X                                   |                                     |                                     |
| <b>Replace engine air cleaner filter.</b>                 |                                   |                                     |                                     |                                     | X                                   |
| <b>Replace spark plugs.</b>                               |                                   |                                     |                                     |                                     | X                                   |

| <b>Miles<br/>(Kilometers)<br/>[Months]</b>                            | <b>36,000<br/>(58 000)<br/>[36]</b> | <b>42,000<br/>(67 000)<br/>[42]</b> | <b>48,000<br/>(77 000)<br/>[48]</b> | <b>54,000<br/>(84 000)<br/>[54]</b> | <b>60,000<br/>(96 000)<br/>[60]</b> | <b>66,000<br/>(106 000)<br/>[66]</b> |
|-----------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| Change engine oil and engine oil filter.                              | X                                   | X                                   | X                                   | X                                   | X                                   | X                                    |
| Check transfer case fluid level.                                      |                                     |                                     |                                     |                                     | X                                   |                                      |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.             | X                                   | X                                   | X                                   | X                                   | X                                   | X                                    |
| Flush and replace engine coolant at 60 months, regardless of mileage. |                                     |                                     |                                     |                                     | X                                   |                                      |
| Inspect brake linings.                                                | X                                   |                                     |                                     | X                                   |                                     |                                      |
| <b>Replace engine air cleaner filter.</b>                             |                                     |                                     |                                     |                                     | X                                   |                                      |
| <b>Replace spark plugs.</b>                                           |                                     |                                     |                                     |                                     | X                                   |                                      |
| <b>Inspect PCV valve, replace as necessary.</b>                       |                                     |                                     |                                     |                                     | X*                                  |                                      |
| <b>Replace ignition cables (5.7L/5.9L/8.0L).</b>                      |                                     |                                     |                                     |                                     | X                                   |                                      |

**0 - 12 LUBRICATION & MAINTENANCE**

DR

## MAINTENANCE SCHEDULES (Continued)

| Miles<br>(Kilometers)                                                                                                                         | 72,000<br>(115 000) | 78,000<br>(125 000) | 84,000<br>(134 000) | 90,000<br>(144 000) | 96,000<br>(154 000) | 100,000<br>(160 000) |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| [Months]                                                                                                                                      | [72]                | [78]                | [84]                | [90]                | [96]                |                      |
| Change engine oil and engine oil filter.                                                                                                      | X                   | X                   | X                   | X                   | X                   |                      |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.                                                                                     | X                   | X                   | X                   | X                   | X                   |                      |
| Drain and refill transfer case fluid.                                                                                                         |                     |                     |                     | X                   |                     |                      |
| Flush and replace engine coolant, if not done at 60 mos.                                                                                      |                     |                     |                     |                     |                     | X                    |
| Flush and replace Power Steering Fluid.                                                                                                       |                     |                     |                     |                     |                     | X                    |
| Inspect brake linings.                                                                                                                        | X                   |                     |                     | X                   |                     |                      |
| <b>Replace engine air cleaner filter.</b>                                                                                                     |                     |                     |                     | X                   |                     |                      |
| <b>Replace spark plugs.</b>                                                                                                                   |                     |                     |                     | X                   |                     |                      |
| <b>Replace ignition cables (5.7L/5.9L/8.0L).</b>                                                                                              |                     |                     |                     | X                   |                     |                      |
| <b>Inspect PCV valve, replace as necessary.</b>                                                                                               |                     |                     |                     | X*                  |                     |                      |
| Inspect auto tension drive belt and replace if required (3.7L/4.7L/5.7L/5.9L/8.0L).                                                           |                     |                     |                     | X                   |                     |                      |
| Drain and refill automatic transmission fluid, change filter and adjust bands (46RE/47RE/48RE).                                               |                     |                     |                     |                     |                     | X                    |
| Drain and refill automatic transmission fluid and change main sump filter and spin-on cooler return filter (if equipped) [45RFE/545RFE only]. |                     |                     |                     |                     |                     | X                    |

| Miles<br>(Kilometers)                                                               | 102,000<br>(163 000) | 108,000<br>(173 000) | 114,000<br>(182 000) | 120,000<br>(192 000) |
|-------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|
| [Months]                                                                            | [102]                | [108]                | [114]                | [120]                |
| Change engine oil and engine oil filter.                                            | X                    | X                    | X                    | X                    |
| Check transfer case fluid level.                                                    |                      |                      |                      | X                    |
| Lubricate outer tie rod ends 2500/3500 (4X4) models only.                           | X                    | X                    | X                    | X                    |
| Inspect brake linings.                                                              |                      | X                    |                      |                      |
| Inspect auto tension drive belt and replace if required (3.7L/4.7L/5.7L/5.9L/8.0L). | X‡                   |                      |                      | X‡                   |
| <b>Replace engine air cleaner filter.</b>                                           |                      |                      |                      | X                    |
| <b>Replace spark plugs.</b>                                                         |                      |                      |                      | X                    |

\* This maintenance is recommended by the manufacturer to the owner but is not required to maintain the emissions warranty.

‡ This maintenance is not required if previously replaced.

Inspection and service should also be performed anytime a malfunction is observed or suspected. Retain all receipts.

**WARNING:** You can be badly injured working on or around a motor vehicle. Do only that service work for which you have the knowledge and the right equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.

## JUMP STARTING

### STANDARD PROCEDURE - JUMP STARTING

**WARNING: REVIEW ALL SAFETY PRECAUTIONS AND WARNINGS IN THE BATTERY SYSTEM SECTION OF THE SERVICE MANUAL. (Refer to 8 - ELECTRICAL/BATTERY SYSTEM/BATTERY - STANDARD PROCEDURE)**

- **DO NOT JUMP START A FROZEN BATTERY, PERSONAL INJURY CAN RESULT.**
- **IF EQUIPPED, 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.**

### 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.

(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:

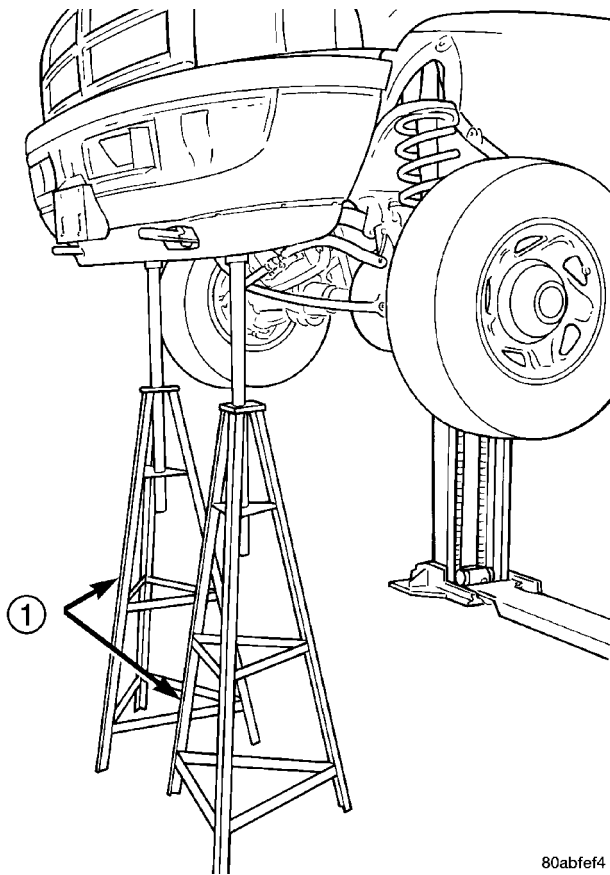
- Disconnect BLACK cable clamp from engine ground on disabled vehicle.
- When using a Booster vehicle, disconnect BLACK cable clamp from battery negative terminal. Disconnect RED cable clamp from battery positive terminal.
- Disconnect RED cable clamp from battery positive terminal on disabled vehicle.

## 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. 5) OR SECURE VEHICLE TO HOISTING DEVICE WHEN THESE CONDITIONS EXIST.**



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**Fig. 5 Safety Stands**

1 - SAFETY STANDS

### FLOOR JACK

When properly positioned, a floor jack can be used to lift a vehicle (Fig. 6). Support the vehicle in the raised position with jack stands at the front and rear ends of the frame rails (Fig. 5).

**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.

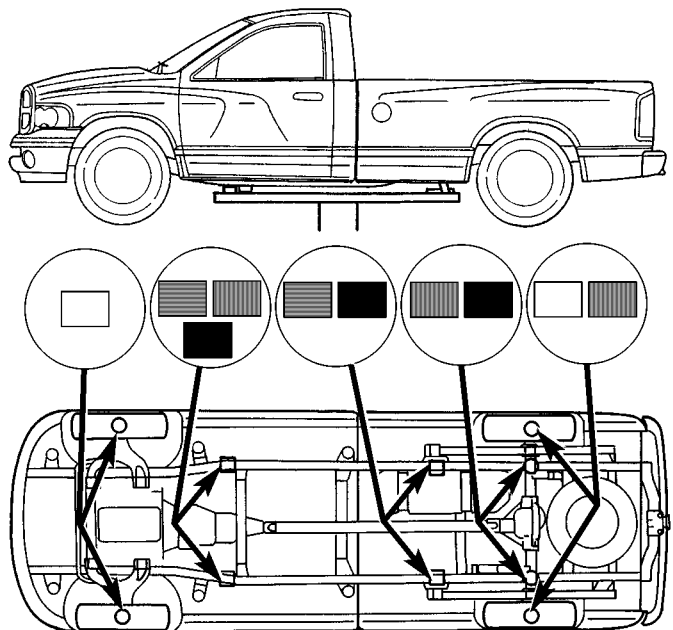
**NOTE: Use the correct frame rail lifting locations only (Fig. 7) and (Fig. 8).**

### 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. 6). The forward lifting pads should be positioned against the forward flange of the transmission crossmember brackets at the bottom of the frame rail (Fig. 7). The rear lifting pads should be wedged between the forward flange of the leaf spring bracket and the frame rail (Fig. 8). Safety stands should be placed under the frame rails at the front and rear ends (Fig. 5).**

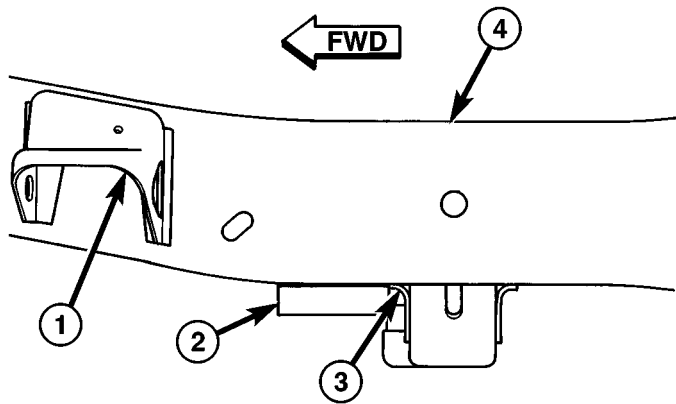


- |  |                            |  |                                |
|--|----------------------------|--|--------------------------------|
|  | <b>DRIVE-ON HOIST</b>      |  | <b>TWIN POST CHASSIS HOIST</b> |
|  | <b>FRAME CONTACT HOIST</b> |  | <b>FLOOR JACK</b>              |

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**Fig. 6 Vehicle Lifting Locations**

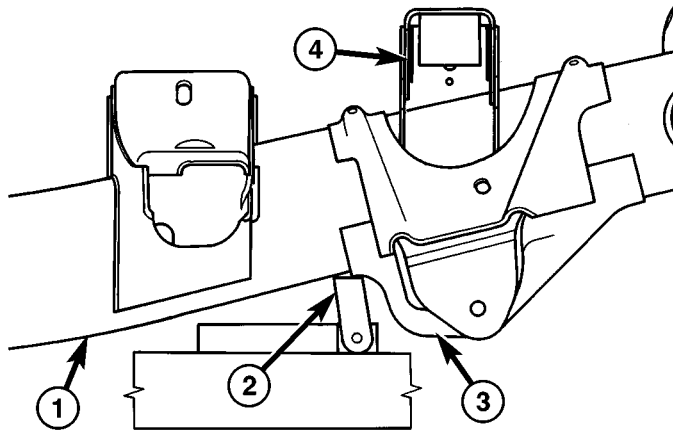
## HOISTING (Continued)



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**Fig. 7 FRONT LIFT PAD LOCATION**

- 1 - BODY MOUNT BRACKET
- 2 - FRONT LIFT PAD
- 3 - TRANSMISSION CROSSMEMBER BRACKET
- 4 - FRAME RAIL



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**Fig. 8 REAR LIFT PAD LOCATION**

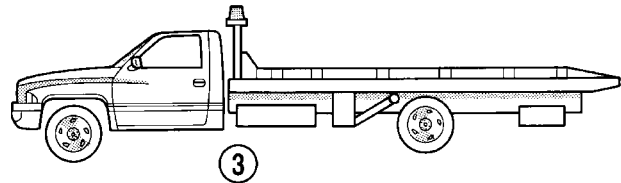
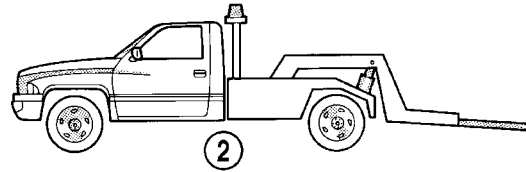
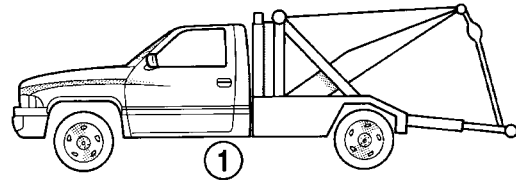
- 1 - FRAME RAIL
- 2 - REAR LIFT PAD
- 3 - LEAF SPRING MOUNTING BRACKET
- 4 - BOX MOUNTING BRACKET

## 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. 9).

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



J9500-6

**Fig. 9 Tow Vehicles With Approved Equipment**

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

**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.
- 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.

## TOWING (Continued)

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 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.