

# 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).

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

8097ddb

**Fig. 1 INTERNATIONAL SYMBOLS**

## FLUID TYPES

### DESCRIPTION

#### 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)

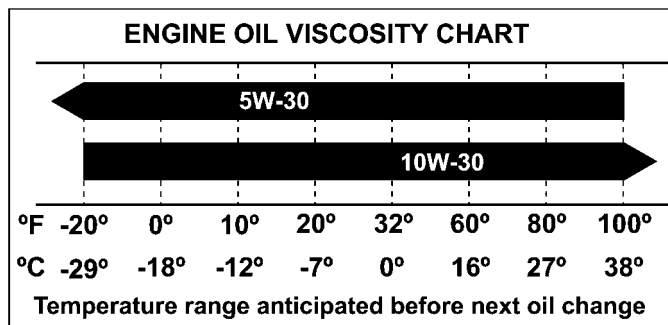
## FLUID TYPES (Continued)

## API SERVICE GRADE CERTIFIED

Use an engine oil that is API Certified (GF-3). Mopar® provides engine oils, meeting Material Standard MS-6395, 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).



80990199

Fig. 2 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 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). Daimler-Chrysler only recommend API Certified (GF-3) engine oils that meet the requirements of Material Standard MS-6395. Use Mopar® or an equivalent oil meeting the specification MS-6395.

## SYNTHETIC ENGINE OILS

There are a number of engine oils being promoted as either synthetic or semi-synthetic. If you chose to use such a product, use **only** those oils that meet the American Petroleum Institute (API) and SAE viscosity standard. Follow the service schedule that describes your driving type.



9400-9

Fig. 3 API SYMBOL

## ENGINE OIL ADDITIVES/SUPPLEMENTS

The manufacturer **does not recommend** the addition of any engine oil additives/supplements to the specified engine oil. Engine oil additives/supplements should not be used to enhance engine oil performance. Engine oil additives/supplements should not be used to extend engine oil change intervals. No additive is known to be safe for engine durability and can degrade emission components. Additives can contain undesirable materials that harm the long term durability of engines by:

- Doubling the level of Phosphorus in the engine oil. The ILSAC (International Lubricant Standard Approval Committee) GF-2 and GF-3 standards require that engine oil contain no more than 0.10% Phosphorus to protect the vehicles emissions performance. Addition of engine oil additives/supplements can poison, from the added sulfur and phosphorus, catalysts and hinder efforts to guarantee emissions performance to 80,000 miles.

- Altering the viscosity characteristics of the engine oil so that it no longer meets the requirements of the specified viscosity grade.

- Creating potential for an undesirable additive compatibility interaction in the engine crankcase. Generally it is not desirable to mix additive packages from different suppliers in the crankcase; there have been reports of low temperature engine failures caused by additive package incompatibility with such mixtures.

## GEAR LUBRICANTS

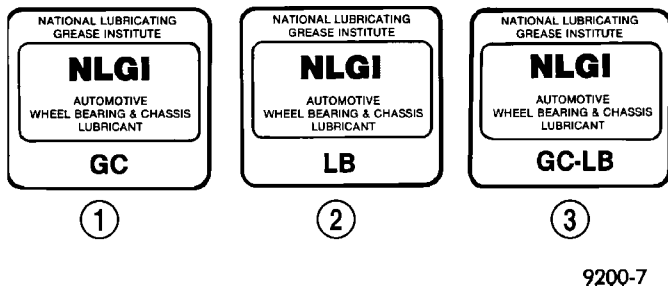
SAE ratings also apply to multigrade gear lubricants. In addition, API classification defines the lubricants usage. Such as API GL-5 and SAE 75W-90.

## 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 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

## FLUID TYPES (Continued)

quality of the lubricant. The following symbols indicate the highest quality.



**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 - 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 boiling 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 hybrid 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.

The green coolant **MUST NOT BE MIXED** with the orange or magenta coolants. When replacing coolant the complete system flush must be performed before using the replacement coolant.

**CAUTION: Mopar® Antifreeze/Coolant, 5 Year/100,000 Mile Formula (MS-9769) may not be mixed with any other type of antifreeze. Doing so will reduce the corrosion protection and may result in premature water pump seal failure. If non-HOAT coolant is introduced into the cooling system in an emergency, it should be replaced with the specified coolant as soon as possible.**

## DESCRIPTION - AUTOMATIC/MANUAL TRANSAXLE FLUID

**NOTE: Refer to the maintenance schedules for the recommended maintenance (fluid/filter change) intervals for available transaxles. The Maintenance Schedules are located in the vehicle Owner's Manual.**

**NOTE: For fluid level checking procedures, refer to Group 21, Transaxle.**

**NOTE: The 41TE automatic and T350/T850 manual transaxles have a common transmission and differential sump. Filling the transaxle accommodates the differential as well.**

## TRANSMISSION FLUID

Mopar® ATF+4 (Automatic Transmission Fluid) is required in both the 41TE automatic and T350/T850 manual transaxles. **Neon SRT-4 Models equipped with the T850 manual transaxle also require the addition of 0.12L (4 oz.) of Mopar® Limited Slip Additive (P/N 04318060AB).** Substitute fluids can induce torque converter clutch shudder, or premature failure of internal transaxle components.

## FLUID TYPES (Continued)

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. 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.

## DESCRIPTION - FUEL REQUIREMENTS

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 support 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 gasoline 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



## FLUID TYPES (Continued)

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:

- 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.

## FLUID CAPACITIES

## SPECIFICATIONS - FLUID CAPACITIES

DESCRIPTION	SPECIFICATION
Fuel Tank	47.5 L (12.5 gal.)
Engine Oil* - 1.6 L	4.3 L (4.5 qts.)
Engine Oil* - 2.0 L	4.3 L (4.5 qts.)
Engine Oil* - 2.4 L	4.8 L (5.0 qts.)
Cooling System**	6.2 L (6.5 qts.)
Automatic Transaxle - Estimated Service Fill	3.8 L (4.0 qts.)
Automatic Transaxle - Overhaul Fill Capacity with Torque Converter Empty	8.1 L (8.6 qts.)
Manual Transaxle - NV T350	2.4-2.7 L (2.5-2.8 qts.)
Manual Transaxle - NV T850***	2.3-2.5L (2.4-2.6 qts.)
*(includes new filter)	
**(includes heater and recovery/reserve bottle)	
*** (includes 0.12 L (4 oz.) of Mopar® Limited Slip Additive (P/N 04318060AB))	

## FLUID FILL/CHECK LOCATIONS

## DESCRIPTION

The fluid check/fill point locations are located in each applicable service manual section.

## LUBRICATION POINTS

## DESCRIPTION

Lubrication point locations are located in each applicable Sections.

## MAINTENANCE SCHEDULES

### DESCRIPTION

#### DESCRIPTION

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 32°F (0°C).
- Stop and go driving.
- Extensive engine idling.
- Driving in dusty conditions.
- Short trips of less than 10 miles (16.2 km).
- More than 50% of your driving is sustained high speeds during hot weather, above 90°F (32°C).
- Trailer towing.†◇
- Taxi, police or delivery service (commercial services).†◇
- Off-road or desert operation.
- **If equipped for and operating with E-85 (ethanol) fuel.**

**NOTE:** If ANY of these apply to you then change your engine oil every 3,000 miles (5 000 km) or 3 months, whichever comes first and follow schedule "B" of the "Maintenance Schedules" section of this manual.

**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 transaxle and add as needed.
- Check all lights and all other electrical items for correct operation.
- Check rubber seals on each side of the radiator for proper fit.

#### At Each Oil Change

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

### SCHEDULE B - NORTH AMERICA

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

Change the automatic transmission fluid and filter every 60,000 miles (96 000 km) if the vehicle is usually operated under one or more of the conditions marked with an ◇.

Change the manual transaxle fluid every 48,000 miles (77 000 km) if the vehicle is usually operated under one or more of the conditions marked with an †.

- Day or night temperatures are below 32°F (0°C).
- Stop and go driving.
- Extensive engine idling.
- Driving in dusty conditions.
- Short trips of less than 10 miles (16.2 km).
- More than 50% of your driving is sustained high speeds during hot weather, above 90°F (32°C).
- Trailer towing.†◇
- Taxi, police or delivery service (commercial services).†◇
- Off-road or desert operation.
- **If equipped for and operating with E-85 (ethanol) fuel.**

## MAINTENANCE SCHEDULES (Continued)

**NOTE: If ANY of these apply to you then change your engine oil every 3,000 miles (5 000 km) or 3 months, whichever comes first and follow schedule "B" of the "Maintenance Schedules" section of this manual.**

If none of these apply to you, then change your engine oil at every interval shown on schedule "A" of the "Maintenance Schedules" section of this manual.

<b>Miles (Kilometers)</b>	<b>3,000 (5 000)</b>	<b>6,000 (10 000)</b>	<b>9,000 (14 000)</b>	<b>12,000 (19 000)</b>	<b>15,000 (24 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.			X		
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					X
Inspect and replace, if required, the <b>air cleaner element (filter)</b> . *					X

<b>Miles (Kilometers )</b>	<b>18,000 (29 000)</b>	<b>21,000 (34 000)</b>	<b>24,000 (38 000)</b>	<b>27,000 (43 000)</b>	<b>30,000 (48 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.	X			X	
Replace <b>air cleaner element (filter)</b> .					X
Check and replace, if necessary, the <b>PCV valve</b> . *					X
Adjust the generator belt tension.					X
Replace the <b>make-up air filter</b> (located inside the air cleaner).					X
Replace the <b>spark plugs</b> .					X
Inspect the tie rod ends and boot seal.					X

<b>Miles (Kilometers)</b>	<b>33,000 (53 000)</b>	<b>36,000 (58 000)</b>	<b>39,000 (62 000)</b>	<b>42,000 (67 000)</b>	<b>45,000 (72 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.		X			X
Inspect and replace, if necessary, the <b>air cleaner element (filter)</b> . *					X
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					X

## MAINTENANCE SCHEDULES (Continued)

<b>Miles (Kilometers)</b>	<b>48,000 (77 000)</b>	<b>51,000 (82 000)</b>	<b>54,000 (86 000 )</b>	<b>57,000 (91 000)</b>	<b>60,000 (96 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.			X		
Replace <b>air cleaner element (filter)</b> .					X
Check and replace, if necessary, the <b>PCV valve</b> . *‡					X
Change the automatic transaxle fluid and adjust the bands.					X
Inspect the tie rod ends and boot seals.					X
Replace the drive belts.					X
Replace the <b>make-up air filter</b> (located inside the air cleaner).					X
Replace the <b>spark plugs</b> .					X
Replace the <b>ignition cables</b> .					X

<b>Miles ( Kilometers)</b>	<b>63,000 (101 000)</b>	<b>66,000 (106 000 )</b>	<b>69,000 (110 000 )</b>	<b>72,000 (115 000)</b>	<b>75,000 (120 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.	X			X	
Inspect and replace, if necessary, the <b>air cleaner element (filter)</b> . *					X
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					X

<b>Miles (Kilometers)</b>	<b>78,000 (125 000)</b>	<b>81,000 (130 000 )</b>	<b>84,000 (134 000 )</b>	<b>87,000 (139 000 )</b>	<b>90,000 (144 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.		X			X
Replace <b>air cleaner element (filter)</b> .					X
Check and replace, if necessary, the <b>PCV valve</b> . *‡					X
Inspect the tie rod ends and boot seals.					X
Adjust the generator drive belt tension.					X
Replace the <b>make-up air filter</b> (located inside the air cleaner).					X
Replace the <b>spark plugs</b> .					X



## MAINTENANCE SCHEDULES (Continued)

Miles (Kilometers)	93,000 (149 000)	96,000 (154 000)	99,000 (158 000 )	102,000 (163 000)	105,000 (168 000)
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.			X		
Replace <b>air cleaner element (filter)</b> . *					X
Flush and replace the engine coolant.				X	
Replace the <b>engine timing belt</b> .					X
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					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.

## SCHEDULE A - NORTH AMERICA

Miles (Kilometers) [Months]	6,000 (10 000) [6]	12,000 (19 000) [12]	18,000 (29 000) [18]	24,000 (38 000) [24]	30,000 (48 000) [30]	36,000 (58 000) [36]
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.			X			X
Replace the <b>engine air cleaner filter</b> .					X	
Replace the <b>spark plugs</b> .					X	
Inspect the tie rod ends and boot seals.					X	
Replace the <b>make-up air filter</b> (located inside the air cleaner).					X	
Adjust generator drive belt tension					X	

## MAINTENANCE SCHEDULES (Continued)

Miles (Kilometers) [Months]	42,000 (67 000) [42]	48,000 (77 000) [48]	54,000 (86 000) [54]	60,000 (96 000) [60]	66,000 (106 000) [66]
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the brake linings.			X		
Replace the <b>engine air cleaner filter</b> .				X	
Replace the <b>spark plugs and ignition cables</b> .				X	
Inspect the tie rod ends and boot seals.				X	
Inspect the <b>PCV valve</b> and replace, if necessary.*				X	
Flush and replace the engine coolant at 60 months, regardless of mileage.				X	
Replace the <b>make-up air filter</b> (located inside the air cleaner).				X	
Replace drive belts.				X	

Miles (Kilometers) [Months]	72,000 (115 000) [72]	78,000 (125 000) [78]	84,000 (134 000) [84]	90,000 (144 000) [90]	96,000 (154 000) [96]	102,000 (160 000) [102]
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.	X			X		
Replace the <b>engine air cleaner filter</b> .				X		
Replace the <b>spark plugs</b> .				X		
Inspect the tie rod ends and boot seals.				X		
Inspect the <b>PCV valve</b> and replace if necessary. Not required if previously changed. * ‡				X		
Replace the <b>make-up air filter</b> (located inside the air cleaner).				X		
Adjust the generator drive belt tension.				X		
Flush and replace the engine coolant at 60 months, regardless of mileage.						X
Replace <b>engine timing belt</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.

## MAINTENANCE SCHEDULES (Continued)

**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.

**DESCRIPTION - EXPORT**

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

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

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

Second 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:** If ANY of these apply to you then change your engine oil every 5 000 km (3,000 miles) or 3 months, whichever comes first and follow schedule

"B" of the "Maintenance Schedules" section of this manual.

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, add as required.
- Check the windshield washer solvent and add if required.

**Once a Month**

- Check the 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 and transaxle and add as needed.
- Check all lights and all other electrical items for correct operation.
- Check rubber seals on each side of the radiator for proper fit.

**At Each Oil Change**

- Replace the engine oil filter at each oil change.
- Inspect the exhaust system.
- Inspect brake linings, hoses and calipers.
- Inspect the CV joints and front suspension components.
- Check the coolant level, hoses, and clamps.
- Rotate the tires at each oil change interval shown on Schedule "A" 12 000 km (7,500 miles) or every other interval shown on Schedule "B" 10 000 km (6,000 miles).

**SCHEDULE A - EXPORT ONLY**

Kilometers (Miles) [Months]	12 000 (7,500) [6]	24 000 (15,000) [12]	36 000 (22,500) [18]	48 000 (30,000) [24]	60 000 (37,500) [30]
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.			X		
Replace <b>air cleaner element (filter)</b> .				X	
Inspect the tie rod ends and boot seals.				X	
Adjust the generator drive belt.				X	
Replace the <b>make-up air filter</b> (located inside the air cleaner).				X	
Replace the <b>spark plugs</b> .				X	

## MAINTENANCE SCHEDULES (Continued)

<b>Kilometers (Miles) [Months]</b>	<b>72 000 (45,000) [36]</b>	<b>84 000 (52,500) [42]</b>	<b>96 000 (60,000) [48]</b>	<b>108 000 (67,500) [54]</b>	<b>120 000 (75,000) [60]</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.	X			X	
Replace <b>air cleaner element (filter)</b> .			X		
Check and replace, if necessary, the <b>PCV valve</b> . * ‡			X		
Replace drive belts.			X		
Flush and refill the engine coolant system if 60 months have been reached before 100,000 miles.					X
Replace the <b>make-up filter</b> (located inside the air cleaner).			X		
Replace the <b>spark plugs</b> and ignition cables.			X		
Inspect tie rod end boot seals.			X		

<b>Kilometers (Miles) [Months]</b>	<b>132 000 (82,500) [66]</b>	<b>144 000 (90,000) [72]</b>	<b>156 000 (97,500) [78]</b>	<b>160 000 (100,000)</b>	<b>168 000 (105,000)</b>
Change engine oil and engine oil filter.	X	X	X		X
Inspect the front brake pads and rear brake linings and rotors.		X			
Replace <b>air cleaner element (filter)</b> .		X			
Check and replace, if necessary, the <b>PCV valve</b> . * ‡		X			
Replace the <b>make-up filter</b> (located inside the air cleaner).		X			
Inspect tie rod end boot seals.		X			
Adjust the generator belt tension.		X			
Replace the <b>spark plugs</b> .		X			
Flush and replace coolant if it was not done at 60 months.				X	
Replace the <b>engine timing belt</b> .					X

**NOTE:** Under NO circumstances should the engine oil change interval exceed 7,500 miles or 6 months, whichever come first.

\* 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.

## MAINTENANCE SCHEDULES (Continued)

**SCHEDULE B - EXPORT ONLY**

Follow schedule "B" if you usually operate your vehicle under one or more of the following conditions. Change the automatic transmission fluid and filter every 96 000 km (60,000 miles) if the vehicle is usually operated under one or more of the conditions marked with an ◇.

Change the manual transaxle fluid every 77 000 km (48,000 miles) if the vehicle is usually operated under one or more of the conditions marked with an †.

- 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 16.2 km (10 miles).
- More than 50% of your driving is sustained high speeds during hot weather, above 32°C (90°F).

- Trailer towing.† ◇
- Taxi, police or delivery service (commercial services).† ◇
- Off-road or desert operation.
- **If equipped for and operating with E-85 (ethanol) fuel.**

**NOTE:** If ANY of these apply to you then change your engine oil every 5 000 km (3,000 miles) or 3 months, whichever comes first and follow schedule "B" of the "Maintenance Schedules" section of this manual.

If none of these apply to you, then change your engine oil at every interval shown on schedule "A" of the "Maintenance Schedules" section of this manual.

<b>Kilometers (Miles)</b>	<b>5 000 (3,000)</b>	<b>10 000 (6,000)</b>	<b>14 000 (9,000)</b>	<b>19 000 (12,000)</b>	<b>24 000 (15,000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.			X		
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					X
Inspect and replace, if required, the <b>air cleaner element (filter)</b> . *					X

<b>Kilometers (Miles)</b>	<b>29 000 (18,000)</b>	<b>34 000 (21,000)</b>	<b>38 000 (24,000)</b>	<b>43 000 (27,000)</b>	<b>48 000 (30,000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.	X			X	
Replace <b>air cleaner element (filter)</b> .					X
Check and replace, if necessary, the <b>PCV valve</b> . *					X
Adjust the generator belt tension 2.0 Liter engine only.					X
Replace the <b>make-up air filter</b> (located inside the air cleaner).					X
Replace the <b>spark plugs</b> .					X
Inspect the tie rod ends and boot seal.					X



## MAINTENANCE SCHEDULES (Continued)

<b>Kilometers (Miles)</b>	<b>53 000 (33,000)</b>	<b>58 000 (36,000)</b>	<b>62 000 (39,000)</b>	<b>67 000 (42,000)</b>	<b>72 000 (45,000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.		X			X
Inspect and replace, if necessary, the <b>air cleaner element (filter)</b> . *					X
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					X

<b>Kilometers (Miles)</b>	<b>77 000 (48,000)</b>	<b>82 000 (51,000)</b>	<b>86 000 (54,000)</b>	<b>91 000 (57,000)</b>	<b>96 000 (60,000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.			X		
Replace <b>air cleaner element (filter)</b> .					X
Check and replace, if necessary, the <b>PCV valve</b> . * ‡					X
Change the automatic transaxle fluid.					X
Inspect the tie rod ends and boot seals.					X
Adjust the generator drive belt tension 2.0 Liter engine only.					X
Replace the <b>make-up air filter</b> (located inside the air cleaner).					X
Replace the <b>spark plugs</b> .					X
Replace the <b>ignition cables</b> .					X

<b>Kilometers (Miles)</b>	<b>101 000 (63,000)</b>	<b>106 000 (66,000)</b>	<b>110 000 (69,000)</b>	<b>115 000 (72,000)</b>	<b>120 000 (75,000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.	X			X	
Inspect and replace, if necessary, the <b>air cleaner element (filter)</b> . *					X
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					X

## MAINTENANCE SCHEDULES (Continued)

Kilometers (Miles)	125 000 (78,000)	130 000 (81,000)	134 000 (84,000)	139 000 (87,000)	144 000 (90,000)
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.		X			X
Replace <b>air cleaner element (filter)</b> .					X
Check and replace, if necessary, the <b>PCV valve</b> . * ‡					X
Inspect the tie rod ends and boot seals.					X
Inspect the engine accessory drive belt, replace if necessary 2.0 Liter engines. Adjust the generator drive belt tension if not replacing belt 2.0 Liter engines only.					X
Replace the <b>make-up air filter</b> (located inside the air cleaner).					X
Replace the <b>spark plugs</b> .					X

Kilometers (Miles)	149 000 (93,000)	154 000 (96,000)	158 000 (99,000)	163 000 (102,000)	168 000 (105,000)
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the front brake pads and rear brake linings and rotors.			X		
Replace <b>air cleaner element (filter)</b> . *					X
Flush and replace the engine coolant.				X	
Replace the <b>engine timing belt</b> .					X
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					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.

**DESCRIPTION - SRT- 4**

There are three maintenance schedules that show **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 32° F (0° C).
- Stop and go driving.
- Extensive engine idling.
- Driving in dusty conditions.
- Short trips of less than 10 miles (16 km).
- More than 50% of your driving is at sustained high speeds during hot weather, above 90° F (32° C).
- 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)

**NOTE:** If ANY of these apply to you then change your engine oil every 3,000 miles (5 000 km) or 3 months, whichever comes first and follow schedule "B" of the "Maintenance Schedules" section of this manual.

**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 and transaxle and add as needed.
- Check all lights and all other electrical items for correct operation.
- Check rubber seals on each side of the radiator for proper fit.

**At Each Oil Change**

- Change the engine oil filter.
- Inspect the exhaust system.
- Inspect the brake hoses.
- Inspect the CV joints and front suspension components.
- Check the manual transaxle fluid level and fill plug condition.
- Check the coolant level, hoses, and clamps.
- Rotate the tires at each oil change interval shown on SCHEDULE "A" 5,000 miles (8 000 km), or every other interval shown on SCHEDULE "B" 6,000 miles (10,000 km).

**SCHEDULE B**

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

Change the manual transaxle fluid every 48,000 miles (77 000 km) if the vehicle is usually operated under one or more of the conditions marked with an †.

- Day or night temperatures are below 32° F (0° C ).
- Stop and go driving.
- Extensive engine idling.
- Driving in dusty conditions.
- Short trips of less than 10 miles (16.2 km).
- More than 50% of your driving is at sustained high speeds during hot weather, above 90° F (32° C ).
- 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:** If ANY of these apply to you then change your engine oil every 3,000 miles (5 000 km) or 3 months, whichever comes first and follow schedule "B" of the "Maintenance Schedules" section of this manual.

If none of these apply to you, then change your engine oil at every interval shown on schedule "A" of the "Maintenance Schedules" section of this manual.

## MAINTENANCE SCHEDULES (Continued)

<b>Miles (Kilometers)</b>	<b>3,000 (5 000)</b>	<b>6,000 (10 000)</b>	<b>9,000 (14 000)</b>	<b>12,000 (19 000)</b>	<b>15,000 (24 000)</b>	<b>18,000 (29 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.				X		
Inspect the <b>engine air cleaner filter</b> . Replace as necessary.*					X	
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					X	

<b>Miles (Kilometers)</b>	<b>21,000 (34 000)</b>	<b>24,000 (38 000)</b>	<b>27,000 (43 000)</b>	<b>30,000 (48 000)</b>	<b>33,000 (53 000)</b>	<b>36,000 (58 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.		X				X
Replace the <b>engine air cleaner filter</b> .				X		
Replace the <b>spark plugs</b> .				X		
Inspect the tie rod ends and boot seals.				X		
Inspect the <b>PCV valve</b> and replace as necessary.*				X		
Replace the <b>make-up air filter</b> (located inside the air cleaner).				X		
Adjust the generator drive belt tension.				X		

<b>Miles (Kilometers)</b>	<b>39,000 (62 000)</b>	<b>42,000 (67 000)</b>	<b>45,000 (72 000)</b>	<b>48,000 (77 000)</b>	<b>51,000 (82 000)</b>	<b>54,000 (86 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.				X		
Change the brake fluid. If vehicle is used for trailer towing.				X		
Inspect the <b>engine air cleaner filter</b> . Replace as necessary.*			X			
Change the manual transaxle fluid.				X		
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).			X			

## MAINTENANCE SCHEDULES (Continued)

Miles (Kilometers)	57,000 (91 000)	60,000 (96 000)	63,000 (101 000)	66,000 (106 000)	69,000 (110 000)	72,000 (115 000)
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.		X				X
Replace the <b>engine air cleaner filter</b> .		X				
Replace the <b>spark plugs and ignition cables</b> .		X				
Inspect the tie rod ends and boot seals.		X				
Inspect the <b>PCV valve</b> and replace if necessary. Not required if previously changed. * ‡		X				
Replace the <b>make-up air filter</b> (located inside the air cleaner).		X				
Adjust the generator drive belt tension.		X				

Miles (Kilometers)	75,000 (120 000)	78,000 (125 000)	81,000 (130 000)	84,000 (134 000)	87,000 (139 000)	90,000 (144 000)
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.				X		
Inspect the <b>engine air cleaner filter</b> and replace as necessary.*	X					
Replace the <b>engine air cleaner filter</b> .						X
Replace the <b>spark plugs</b> .						X
Inspect the tie rod ends and boot seals.						X
Inspect the <b>PCV valve</b> and replace if necessary. Not required if previously changed. * ‡						X
Replace the <b>engine timing belt</b> .*						X
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).	X					X
Adjust the generator drive belt tension.						X



## MAINTENANCE SCHEDULES (Continued)

<b>Miles (Kilometers)</b>	<b>93,000 (149 000)</b>	<b>96,000 (154 000)</b>	<b>99,000 (158 000)</b>	<b>102,000 (163 000)</b>	<b>105,000 (168 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the brake linings.		X			
Change the brake fluid. If vehicle is used for trailer towing.		X			
Inspect the <b>engine air cleaner filter</b> and replace as necessary.*					X
Change the manual transaxle fluid.		X			
Flush and replace the engine coolant at 60 months or 102,000 miles.				X	
Inspect and replace, if required, the <b>make-up air filter</b> (located inside the air cleaner).					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.

## SCHEDULE A

<b>Miles (Kilometers) [Months]</b>	<b>5,000 (8 000) [6]</b>	<b>10,000 (16 000)</b>	<b>15,000 (24 000) [12]</b>	<b>20,000 (32 000) [18]</b>	<b>25,000 (40 000)</b>	<b>30,000 (48 000) [24]</b>
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.				X		
Replace the <b>engine air cleaner filter</b> .						X
Replace the <b>spark plugs</b> .						X
Inspect the tie rod ends and boot seals.						X
Replace the <b>make-up air filter</b> (located inside the air cleaner).						X
Adjust the generator drive belt tension.						X

<b>Miles (Kilometers) [Months]</b>	<b>35,000 (56 000) [30]</b>	<b>40,000 (64 000)</b>	<b>45,000 (72 000) [36]</b>	<b>50,000 (80 000) [42]</b>	<b>55,000 (88 000)</b>
Change engine oil and engine oil filter.	X	X	X	X	X
Inspect the brake linings.		X			

## MAINTENANCE SCHEDULES (Continued)

Miles (Kilometers) [Months]	60,000 (96 000) [48]	65,000 (104 000) [54]	70,000 (112 000)	75,000 (120 000) [60]	80,000 (128 000) [66]	85,000 (136 000)
Change engine oil and engine oil filter.	X	X	X	X	X	X
Inspect the brake linings.	X				X	
Replace the <b>engine air cleaner filter</b> .	X					
Replace the <b>spark plugs and ignition cables</b> .	X					
Inspect the tie rod ends and boot seals.	X					
Inspect the <b>PCV valve</b> and replace if necessary. Not required if previously changed. * ‡	X					
Flush and replace the engine coolant at 60 months, regardless of mileage.				X		
Replace the <b>make-up air filter</b> (located inside the air cleaner).	X					
Adjust the generator drive belt tension.	X					

Miles (Kilometers) [Months]	90,000 (144 000) [72]	95,000 (156 000) [78]	100,000 (160 000)	105,000 (168 000) [84]
Change engine oil and engine oil filter.	X	X	X	X
Inspect the brake linings.			X	
Replace the <b>engine air cleaner filter</b> .	X			
Replace the <b>spark plugs</b> .	X			
Adjust the generator drive belt tension.	X			
Inspect the tie rod ends and boot seals.	X			
Inspect the <b>PCV valve</b> and replace if necessary. Not required if previously changed. * ‡	X			
Flush and replace the engine coolant if not done at 60 months.			X	
Replace the <b>make-up air filter</b> (located inside the air cleaner).	X			
Replace the <b>engine timing belt</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.

## MAINTENANCE SCHEDULES (Continued)

**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.

## HOISTING

## STANDARD PROCEDURE - HOISTING RECOMMENDATIONS

Refer to Owner's Manual provided with vehicle for proper emergency jacking procedures.

**WARNING:** THE HOISTING AND JACK LIFTING POINTS PROVIDED ARE FOR A COMPLETE VEHICLE. WHEN THE ENGINE OR REAR SUSPENSION IS REMOVED FROM A VEHICLE, THE CENTER OF GRAVITY IS ALTERED MAKING SOME HOISTING CONDITIONS UNSTABLE. PROPERLY SUPPORT OR SECURE VEHICLE TO HOISTING DEVICE WHEN THESE CONDITIONS EXIST.

**CAUTION:** Do not position hoisting device on suspension components, damage to vehicle can result. Do not attempt to raise one entire side of the vehicle by placing a floor jack midway between the front and rear wheels. This practice may result in permanent damage to the body.

## FLOOR JACK

When properly positioned, a floor jack can be used to lift the vehicle (Fig. 5). Support the vehicle in the raised position with jack stands.

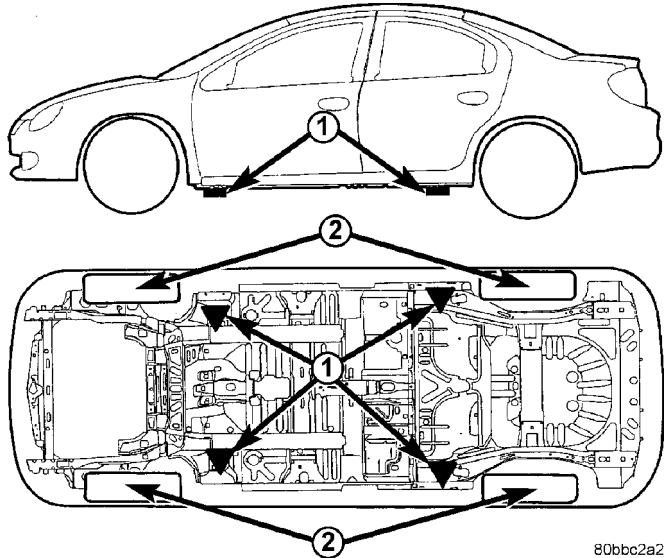
A floor jack or any lifting device, must never be used on any part of the underbody other than the described areas.

## 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. 5).



**Fig. 5 Hoisting and Jacking Points**

- 1 - FRAME CONTACT LIFT (SINGLE POST)
- 1 - CHASSIS LIFT (DUAL POST)
- 1 - OUTBOARD LIFT (DUAL POST)
- 1 - FLOOR JACK
- 2 - DRIVE ON LIFT

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## JUMP STARTING

## STANDARD PROCEDURE - JUMP STARTING

**WARNING:** 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.

**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.

## JUMP STARTING (Continued)

- Yellow or white color test indicator, if equipped.
- 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.

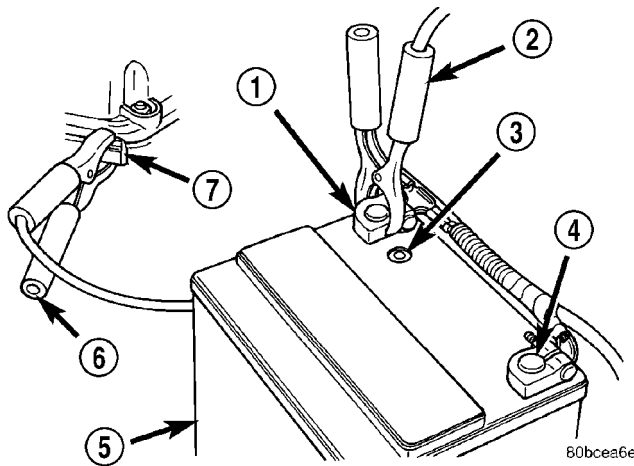
(2) When using another vehicle as a booster source, park the booster vehicle within cable reach. Turn off all accessories, set the parking brake, place the automatic transmission in PARK or the manual transmission in NEUTRAL and turn the ignition OFF.

(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 (Fig. 6). 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.



**Fig. 6 Jumper Cable Clamp Connections**

- 1 - BATTERY POSITIVE CABLE
- 2 - POSITIVE JUMPER CABLE
- 3 - TEST INDICATOR
- 4 - BATTERY NEGATIVE CABLE
- 5 - BATTERY
- 6 - NEGATIVE JUMPER CABLE
- 7 - ENGINE GROUND

**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 minutes), 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.

## TOWING

## STANDARD PROCEDURE - TOWING

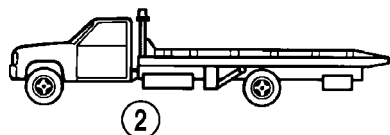
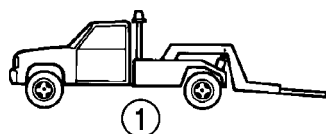
**WARNING:** DO NOT ALLOW TOWING ATTACHMENT DEVICES TO CONTACT THE FUEL TANK OR LINES, FUEL LEAK CAN RESULT. DO NOT LIFT OR TOW VEHICLE BY FRONT OR REAR BUMPER, OR BUMPER ENERGY ABSORBER UNITS. DO NOT VENTURE UNDER A LIFTED VEHICLE IF NOT SUPPORTED PROPERLY ON SAFETY STANDS. DO NOT ALLOW PASSENGERS TO RIDE IN A TOWED VEHICLE. USE A SAFETY CHAIN THAT IS INDEPENDENT FROM THE TOWING ATTACHMENT DEVICE.

**CAUTION:** Do not damage brake lines, exhaust system, shock absorbers, sway bars, or any other under vehicle components when attaching towing device to vehicle. Do not attach towing device to front or rear suspension components. Do not secure vehicle to towing device by the use of front or rear suspension or steering components. Remove or secure loose or protruding objects from a damaged vehicle before towing. Refer to state and local rules and regulations before towing a vehicle. Do not allow weight of towed vehicle to bear on lower fascia, air dams, or spoilers.

## RECOMMENDED TOWING EQUIPMENT

To avoid damage to bumper fascia and air dams use of a wheel lift or flat bed towing device (Fig. 7) is recommended. When using a wheel lift towing device, be sure the unlifted end of disabled vehicle has at least 100 mm (4 in.) ground clearance. If minimum ground clearance cannot be reached, use a towing dolly. If a flat bed device is used, the approach angle should not exceed 15 degrees.

## TOWING (Continued)



9100-17

**Fig. 7 Recommended Towing Devices**

- 1 - WHEEL LIFT  
2 - FLAT BED

**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.

**LOCKED VEHICLE TOWING**

When a locked vehicle must be towed with the front wheels on the ground, use a towing dolly or flat bed hauler.

**FLAT TOWING WITH TOW BAR**

- 4-speed electronic automatic transaxle vehicles can be flat towed at speeds not to exceed 72 km/h (44

mph) for not more than 160 km (100 miles). The steering column must be unlocked and gear selector in neutral.

- 5-speed manual transaxle vehicles can be flat towed at any legal highway speed for extended distances. The gear selector must be in the neutral position.

**TOWING – FRONT WHEEL LIFT**

Chrysler Corporation recommends that a vehicle be towed with the front end lifted, whenever possible.

**TOWING – REAR WHEEL LIFT**

If a vehicle cannot be towed with the front wheels lifted, the rear wheels can be lifted provided the following guide lines are observed.

**CAUTION:** Do not use steering column lock to secure steering wheel during towing operation.

- Unlock steering column and secure steering wheel in straight ahead position with a clamp device designed for towing.
- Verify that front drive line and steering components are in good condition.
- 4-speed electronic automatic transaxle vehicles can be flat towed at speeds not to exceed 72 km/h (44 mph) for not more than 160 km (100 miles). The steering column must be unlocked and gear selector in neutral.
- 5-speed manual transaxle vehicles can be towed at any legal highway speed for extended distances. The gear selector must be in the neutral position.