LUBRICATION AND MAINTENANCE

CONTENTS

	page		page
GENERAL INFORMATION	1	**MAINTENANCE SCHEDULES**	3
JUMP STARTING, TOWING AND HOISTING	7		

GENERAL INFORMATION

INDEX

	page		page
GENERAL INFORMATION		INTRODUCTION	1
CLASSIFICATION OF LUBRICANTS	1	PARTS AND LUBRICANT RECOMMENDATIONS	1
FLUID CAPACITIES	2		
INTERNATIONAL SYMBOLS	1		

GENERAL INFORMATION

INTRODUCTION

Service and maintenance procedures for components and systems listed in Schedule—A or B can be found by using the Group Tab Locator index at the front of this manual. If it is not clear which group contains the information needed, refer to the index at the back of this manual.

There are two maintenance schedules that show proper service based on the conditions that the vehicle is subjected to.

Schedule— **A** , lists scheduled maintenance to be performed when the vehicle is used for general transportation.

Schedule— **B** , lists maintenance intervals for vehicles that are operated under the conditions listed at the beginning of the Maintenance Schedule section.

Use the schedule that best describes your driving conditions.

Where time and mileage are listed, follow the interval that occurs first.

PARTS AND LUBRICANT RECOMMENDATIONS

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

INTERNATIONAL SYMBOLS

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

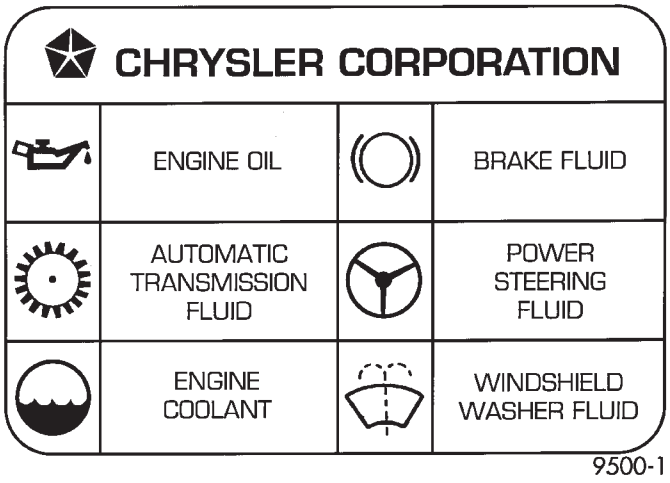

Fig. 1 International Symbols

GENERAL INFORMATION (Continued)

CLASSIFICATION OF LUBRICANTS

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

- Society of Automotive Engineers (SAE)
- American Petroleum Institute (API) (Fig. 2)
- National Lubricating Grease Institute (NLGI) (Fig. 3)

9400-9

Fig. 2 API Symbol

ENGINE OIL

SAE GRADE RATING INDICATES ENGINE OIL VISCOSITY

An SAE viscosity grade is used to specify the viscosity of engine oil. SAE 30 specifies a single viscosity engine oil. Engine oils also have multiple viscosities. These are specified with a dual SAE viscosity grade which indicates the cold-to-hot temperature viscosity range.

- SAE 30 = single grade engine oil.
- SAE 10W-30 = multiple grade engine oil.

API QUALITY CLASSIFICATION

The API Service Grade specifies the type of performance the engine oil is intended to provide. The API Service Grade specifications also apply to energy conserving engine oils.

Use engine oils that are API Service Certified. 5W-30 and 10W-30 MOPAR engine oils conform to specifications.

Refer to Group 9, Engine for engine oil specification.

GEAR LUBRICANTS

SAE ratings also apply to multiple grade gear lubricants. In addition, API classification defines the lubricants usage.

LUBRICANTS AND GREASES

Lubricating grease is rated for quality and usage by the NLGI. All approved products have the NLGI symbol (Fig. 3) on the label. At the bottom NLGI symbol is the usage and quality identification letters. Wheel bearing lubricant is identified by the letter “G”. Chassis lubricant is identified by the latter “L”. The letter following the usage letter indicates the quality of the lubricant. The following symbols indicate the highest quality.

9200-7

Fig. 3 NLGI Symbol

FLUID CAPACITIES

FUEL TANK

All . . . . . 47.3 L (12.5 gal.)

ENGINE OIL W/FILTER CHANGE

All . . . . . 4.25 L (4.5 qts.)

ENGINE OIL W/OUT FILTER CHANGE

All . . . . . 3.8 L (4.0 qts.)

COOLING SYSTEM

All* . . . . . 6 L (6.5 qts.)
*Includes heater and coolant recovery bottle

AUTOMATIC TRANSAXLE

NOTE: Overhaul Fill Capacity with Torque Converter Empty

31 TH . . . . . 8.4 L (8.9 qts.)
31 TH (Fleet Vehicles) . . . . . 8.7 L (9.2 qts.)

MANUAL TRANSAXLE

NV T350 . . . . . 1.9-2.2 L (4.0-4.6 pts.)

POWER STEERING

All . . . . . 0.95 L (2.0 pts.)

MAINTENANCE SCHEDULES

INDEX

page

GENERAL INFORMATION
INTRODUCTION 3
SCHEDULE—A 3
SCHEDULE—B 4
UNSCHEDULED INSPECTION 3

GENERAL INFORMATION

INTRODUCTION

Service and maintenance procedures for components and systems listed in Schedule—A or B can be found by using the Group Tab Locator index at the front of this manual. If it is not clear which group contains the information needed, refer to the index at the back of this manual.

There are two maintenance schedules that show proper service based on the conditions that the vehicle is subjected to. Use the schedule that best describes these conditions.

Schedule— **A** , lists maintenance recommended for vehicles used for general transportation.

Schedule— **B** , lists maintenance recommended for vehicles used under the following conditions:

- Frequent short trip driving less than 5 miles (8 km)
- Frequent driving in dusty conditions
- Frequent trailer towing
- Extensive idling
- More than 50% of your driving is at sustained high speeds during hot weather, above 90°F (32°C)

Where time and mileage are listed, follow the interval that occurs first.

EMISSION CONTROL SYSTEM MAINTENANCE

The scheduled emission maintenance listed in **bold type** on the Maintenance Schedules, must be done at the mileage specified to assure the continued proper functioning of the emission control system. These, and all other maintenance services included in this manual, should be done to provide the best vehicle performance and reliability. More frequent maintenance may be needed for vehicles in severe operating conditions such as dusty areas and very short trip driving.

UNSCHEDULED INSPECTION

At Each Stop For Fuel

- Check engine oil level, add as required.
- Check windshield washer solvent and add if required.

Once A Month

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

At Each Oil Change

- Inspect exhaust system.
- Inspect brake hoses.
- Inspect the CV joints and front suspension components.
- Rotate the tires at each oil change interval shown on Schedule—A (7,500 miles) or every other interval shown on schedule—B (6,000 miles).
- Check coolant level, hoses and clamps.
- Check the manual transaxle fluid level.
- If the mileage is less than 7,500 miles (12 000 km) yearly, replace the engine oil filter at each oil change.

SCHEDULE—A

7,500 Miles (12 000 km) or at 6 months

- Change engine oil.

15,000 Miles (24 000 km) or at 12 months

- Change engine oil.
- Replace engine oil filter.
- Adjust drive belt tension.

22,500 Miles (36 000 km) or at 18 months

- Change engine oil.
- Inspect the front brake pads and rear brake linings.

30,000 Miles (48 000 km) or at 24 months

- Change engine oil.
- Replace engine oil filter.
- Lubricate front suspension ball joints.
- Adjust drive belt tension.

GENERAL INFORMATION (Continued)

- **Replace air cleaner element.**
- **Replace spark plugs.**

37,500 Miles (60 000 km) or at 30 months

- Change engine oil.

45,000 Miles (72 000 km) or at 36 months

- Change engine oil.
- Replace engine oil filter.
- Inspect front brake pads and rear brake linings.
- Adjust drive belt tension.
- Flush and replace engine coolant at 36 months, regardless of mileage.

52,500 Miles (84 000 km) or at 42 months

- Change engine oil.
- Flush and replace engine coolant if not done at 36 months.

60,000 Miles (96 000 km) or at 48 months

- Change engine oil.
- Replace engine oil filter.
- **Check and replace, if necessary***, the PCV valve.****
- Lubricate front suspension upper ball joints.
- Replace drive belts.
- **Replace air cleaner element.**
- **Replace ignition cables.**
- **Replace spark plugs.**

67,500 Miles (108 000 km) or at 54 months

- Change engine oil.
- Inspect front brake pads and rear brake linings.

75,000 Miles (120 000 km) or at 60 months

- Change engine oil.
- Replace engine oil filter.
- Adjust drive belt tension.
- Flush and replace engine coolant if it has been 30,000 miles (48 000 km) or 24 months since last change.

82,500 Miles (132 000 km) or at 66 months

- Change engine oil.
- Flush and replace engine coolant if it has been 30,000 miles (48 000 km) or 24 months since last change.

90,000 Miles (144 000 km) or at 72 months

- Change engine oil.
- Replace engine oil filter.
- **Check and replace, if necessary***, the PCV valve.****
- Lubricate front suspension upper ball joints.
- Inspect front brake pads and rear brake linings.
- Adjust drive belt tension.
- **Replace air cleaner air cleaner element.**
- **Replace spark plugs.**

97,500 Miles (156 000 km) or at 78 months

- Change engine oil.

105,000 Miles (168 000 km)

- Change engine oil.
- Replace engine oil filter.
- **Replace engine timing belt**
- Adjust drive belt tension.

SCHEDULE—B

3,000 Miles (5 000 km)

- Change engine oil

6,000 Miles (10 000 km)

- Change engine oil
- Replace engine oil filter.

9,000 Miles (14 000 km)

- Change engine oil
- Inspect front brake pads and rear brake lining.

12,000 Miles (19 000 km)

- Change engine oil
- Replace engine oil filter.

15,000 Miles (24 000 km)

- Change engine oil
- Adjust drive belt tension.
- **Inspect and replace, if required, the air cleaner element.**
- Change automatic transaxle fluid and filter. Adjust the bands.*

18,000 Miles (29 000 km)

- Change engine oil
- Replace engine oil filter.
- Inspect front brake pads and rear brake linings.

21,000 Miles (34 000 km)

- Change engine oil

24,000 Miles (38 000 km)

- Change engine oil
- Replace engine oil filter.

27,000 Miles (43 000 km)

- Change engine oil
- Inspect front brake pads and rear brake linings.

30,000 Miles (48 000 km)

- Change engine oil
- Replace engine oil filter.
- **Check and replace, if necessary, the PCV valve.****

GENERAL INFORMATION (Continued)

- Lubricate front suspension upper ball joints.
- Adjust drive belt tension.
- **Replace air cleaner element.**
- **Replace spark plugs.**
- Change automatic transmission fluid and filter. Adjust the bands.*

33,000 Miles (53 000 km)

- Change engine oil.

36,000 Miles (58 000 km)

- Change engine oil.
- Replace engine oil filter.
- Flush and replace engine coolant.
- Inspect front brake pads and rear brake linings.

39,000 Miles (62 000 km)

- Change engine oil.

42,000 Miles (67 000 km)

- Change engine oil.
- Replace engine oil filter.

45,000 Miles (72 000 km)

- Change engine oil.
- Inspect front brake pads and rear brake linings.
- **Inspect and replace, if necessary, the air cleaner element.**
- Adjust drive belt tension.
- Change automatic transaxle fluid and filter. Adjust the bands.*

48,000 Miles (77 000 km)

- Change engine oil.
- Replace engine oil filter.

51,000 Miles (82 000 km)

- Change engine oil.
- Flush and replace engine coolant.

54,000 Miles (86 000 km)

- Change engine oil.
- Replace engine oil filter.
- Inspect front brake pads and rear brake linings.

57,000 Miles (91 000 km)

- Change engine oil.

60,000 Miles (96 000 km)

- Change engine oil.
- Replace engine oil filter.
- **Check and replace, if necessary***, the PCV valve.****
- Lubricate front suspension upper ball joints.
- Replace drive belts.
- **Replace air cleaner element.**
- **Replace ignition cables.**
- **Replace spark plugs.**
- Change automatic transaxle fluid and filter. Adjust the bands.*

63,000 Miles (101 000 km)

- Change engine oil.
- Inspect front brake pads and rear brake linings.

66,000 Miles (106 000 km)

- Change engine oil.
- Replace engine oil filter.

69,000 Miles (110 000 km)

- Change engine oil.

72,000 Miles (115 000 km)

- Change engine oil.
- Replace engine oil filter.
- Inspect front brake pads and rear brake linings.

75,000 Miles (120 000 km)

- Change engine oil.
- Adjust drive belt tension.
- **Inspect and replace, if necessary, the air cleaner element.**
- Change automatic transaxle fluid and filter. Adjust the bands.*

78,000 Miles (125 000 km)

- Change engine oil.
- Replace engine oil filter.

81,000 Miles (130 000 km)

- Change engine oil.
- Flush and replace the engine coolant.
- Inspect front brake pads and rear brake linings.

84,000 Miles (134 000 km)

- Change engine oil.
- Replace engine oil filter.

87,000 Miles (139 000 km)

- Change engine oil.

90,000 Miles (144 000 km)

- Change engine oil.
- Replace engine oil filter.
- Inspect front brake pads and rear brake linings.
- **Check and replace, if necessary***, the PCV valve.****
- Lubricate front suspension upper ball joints.
- Adjust drive belt tension.
- **Replace air cleaner element.**
- **Replace spark plugs.**
- Change automatic transaxle fluid and filter. Adjust the bands.*

GENERAL INFORMATION (Continued)

93,000 Miles (149 000 km)

- Change engine oil.

96,000 Miles (154 000 km)

- Change engine oil.
- Replace engine oil filter.

99,000 Miles (158 000 km)

- Change engine oil.
- Inspect front brake pads and rear brake linings.

102,000 Miles (163 000km)

- Change engine oil.
- Replace engine oil filter.

105,000 Miles (168 000km)

- **Replace the engine timing belt**
- Change engine oil.
- Replace engine oil filter.
- Adjust drive belt tension.
- **Inspect and replace, if necessary, the air cleaner element.**

*Police, taxi, or delivery service usage and trailer towing require the more frequent transaxle service indicated with a * in schedule—B. Perform these services if the vehicle is usually operated under these conditions.

NOTE: **This maintenance is recommended by Chrysler to the owner but is not required to maintain the warranty on the PCV valve.

NOTE: ***This maintenance is not required if the PCV valve was previously replaced.

JUMP STARTING, TOWING AND HOISTING

INDEX

page

SERVICE PROCEDURES
HOISTING RECOMMENDATIONS 9
JUMP STARTING PROCEDURE 7
TOWING RECOMMENDATIONS 8

SERVICE PROCEDURES

JUMP STARTING PROCEDURE

WARNING: REVIEW ALL SAFETY PRECAUTIONS AND WARNINGS IN GROUP 8A, BATTERY/STARTING/CHARGING SYSTEMS DIAGNOSTICS. DO NOT JUMP START A FROZEN BATTERY, PERSONAL INJURY CAN RESULT. DO NOT JUMP START WHEN MAINTENANCE FREE BATTERY INDICATOR DOT IS YELLOW OR BRIGHT COLOR. DO NOT JUMP START A VEHICLE WHEN THE BATTERY FLUID IS BELOW THE TOP OF LEAD PLATES. DO NOT ALLOW JUMPER CABLE CLAMPS TO TOUCH EACH OTHER WHEN CONNECTED TO A BOOSTER SOURCE. DO NOT USE OPEN FLAME NEAR BATTERY. REMOVE METALLIC JEWELRY WORN ON HANDS OR WRISTS TO AVOID INJURY BY ACCIDENTAL ARCING OF BATTERY CURRENT. WHEN USING A HIGH OUTPUT BOOSTING DEVICE, DO NOT ALLOW BATTERY VOLTAGE TO EXCEED 16 VOLTS. REFER TO INSTRUCTIONS PROVIDED WITH DEVICE BEING USED.

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 (Fig. 1).

(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.

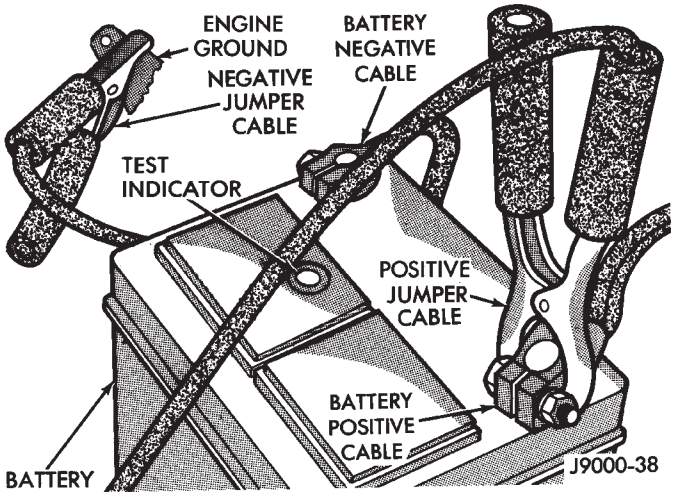

Fig. 1 Jumper Cable Clamp Connections

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.

SERVICE PROCEDURES (Continued)

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 RECOMMENDATIONS

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. 2) 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.

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.

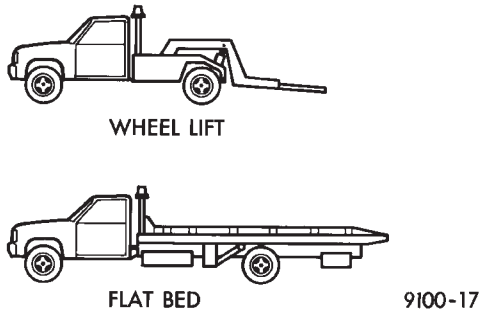

Fig. 2 Recommended Towing Devices

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

- 3-speed automatic transaxle vehicles can be flat towed at speeds not to exceed 40 km/h (25 mph) for not more than 25 km (15 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.
- 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.
- 3-speed automatic transaxle vehicles can be towed at speeds not to exceed 40 km/h (25 mph) for

SERVICE PROCEDURES (Continued)

not more than 25 km (15 miles). The gear selector must be in the neutral position.

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 a PL vehicle (Fig. 3). Support the vehicle in the raised position with jack stands.

A floor jack must never be used on any part of the underbody.

HOIST

A vehicle can be lifted with:

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

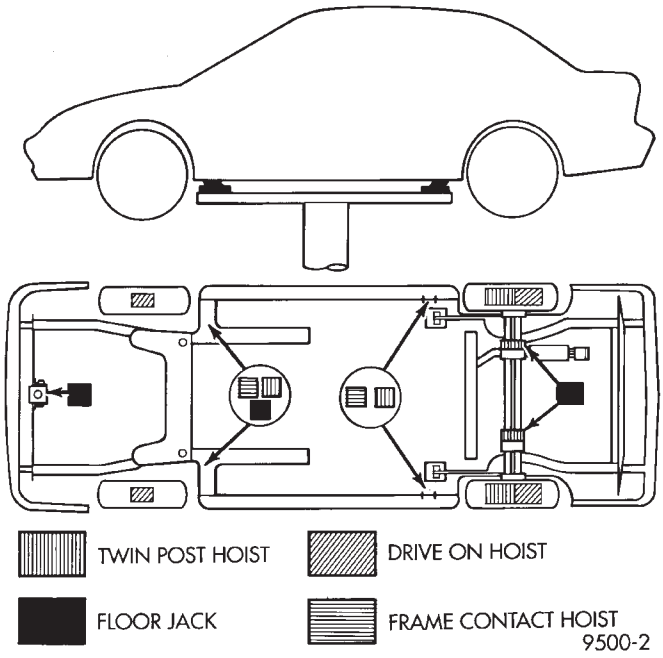

Fig. 3 Hoisting and Jacking Points

NOTE: When a frame-contact type hoist is used, verify that the lifting pads are positioned properly (Fig. 3).