



TCCS1222

Fig. 71 Hoses are likely to deteriorate from the inside if the cooling system is not periodically flushed

leaks and loose hose clamps at least every 15,000 miles (24,000 km). It is also wise to check the hoses periodically in early spring and at the beginning of the fall or winter when you are performing other maintenance. A quick visual inspection could discover a weakened hose, which might leave you stranded if it remains faulty.

Whenever you are checking the hoses, make sure the engine and cooling system are cold. Visually inspect for cracking, rotting or collapsed hoses, and replace as necessary. Run your hand along the length of the hose. If a weak or swollen spot is noted when squeezing the hose wall, the hose should be replaced.

REMOVAL & INSTALLATION

1. Remove the radiator pressure cap.

CAUTION

Never remove the pressure cap while the engine is running, or personal injury from scalding hot coolant or steam may result. If possible, wait until the engine has cooled to remove the pressure cap. If this is not possible, wrap a thick cloth around the pressure cap and turn it slowly to the stop. Step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, use the cloth to turn and remove the cap.

2. Position a clean container under the radiator and/or engine draincock or plug, then open the drain

and allow the cooling system to drain to an appropriate level. For some upper hoses, only a little coolant must be drained. To remove hoses positioned lower on the engine, such as a lower radiator hose, the entire cooling system must be emptied.

CAUTION

When draining coolant, keep in mind that cats and dogs are attracted by ethylene glycol antifreeze, and are quite likely to drink any that is left in an uncovered container or in puddles on the ground. This will prove fatal in sufficient quantity. Always drain coolant into a sealable container. Coolant may be reused unless it is contaminated or several years old.

3. Loosen the hose clamps at each end of the hose requiring replacement. Clamps are usually either of the spring tension type (which require pliers to squeeze the tabs and loosen) or of the screw tension type (which require screw or hex drivers to loosen). Pull the clamps back on the hose away from the connection.

4. Twist, pull and slide the hose off the fitting, taking care not to damage the neck of the component from which the hose is being removed.

➔ If the hose is stuck at the connection, do not try to insert a screwdriver or other sharp tool under the hose end in an effort to free it, as the connection and/or hose may become damaged. Heater connections especially may be easily damaged by such a procedure. If the hose is to be replaced, use a single-edged razor blade or suitable cutting edge, to make a slice along the portion of the hose that is stuck on the connection, perpendicular to the end of the hose. Do not cut too deeply, damage to the connection could result. The hose can then be peeled from the connection and discarded.

5. Clean both hose mounting connections. Inspect the condition of the hose clamps and replace them, if necessary.

To install:

6. Dip the ends of the new hose into clean engine coolant to ease installation.
7. Slide the clamps over the replacement hose, then slide the hose ends over the connections into position.
8. Position and secure the clamps at least ¼ in. (6.35mm) from the ends of the hose. Make sure

they are located beyond the raised bead of the connector.

9. Close the radiator or engine drains and properly refill the cooling system with the clean drained engine coolant or a suitable mixture of ethylene glycol coolant and water. Be sure to maintain a 50/50 mix as a minimum in the system.

10. If available, install a pressure tester and check for leaks. If a pressure tester is not available, run the engine until normal operating temperature is reached (allowing the system to naturally pressurize), then check for leaks.

CAUTION

If you are checking for leaks with the system at normal operating temperature, BE EXTREMELY CAREFUL not to touch any moving or hot engine parts. Once temperature has been reached, shut the engine OFF, and check for leaks around the hose fittings and connections that were removed earlier.

CV-Boots

INSPECTION

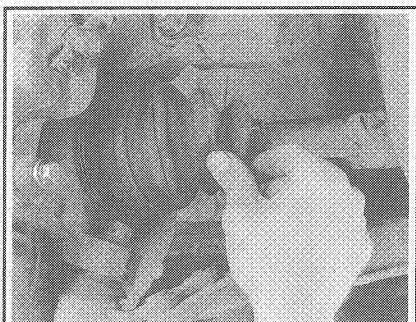
- ➔ See Figures 72 and 73

The CV (Constant Velocity) boots should be checked for damage each time the oil is changed and any other time the vehicle is raised for service. These boots keep water, grime, dirt and other damaging matter from entering the CV-joints. Any of these could cause early CV-joint failure that can be expensive to repair. Heavy grease thrown around the inside of the front wheel(s) and on the brake caliper/drum can be an indication of a torn boot. Thoroughly check the boots for missing clamps and tears. If the boot is damaged, it should be replaced immediately. Please refer to Section 7 for procedures.

Spark Plugs

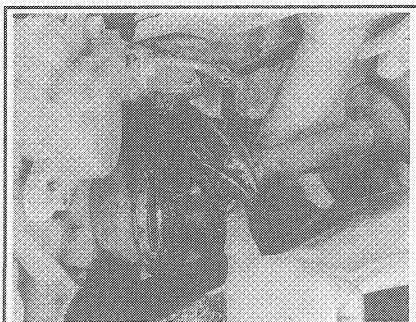
- ➔ See Figures 74 and 75

A typical spark plug consists of a metal shell surrounding a ceramic insulator. A metal electrode extends downward through the center of the insulator and protrudes a small distance. Located at the end of the plug and attached to the side of the outer metal shell is the side electrode. The side electrode



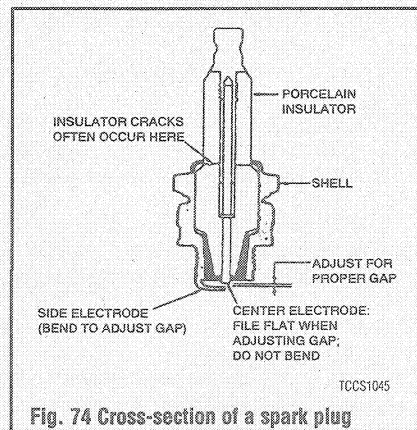
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Fig. 72 CV-boots must be inspected periodically for damage



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Fig. 73 A torn boot should be replaced immediately



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Fig. 74 Cross-section of a spark plug