

## ESSENTIAL SERVICES II

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Last week, we stepped through two of the periodic under-the-hood checks you can do yourself. The two we addressed were: (1) checking the engine oil level and condition; and (2) checking the power steering level. This week, we'll step through a couple more.

**Coolant Level:** First, NEVER, NEVER, NEVER attempt to open a radiator cap on a vehicle that has just been running. If necessary, wait for the engine to cool down. The pressurized coolant is very hot – right about the temperature of boiling water. Opening the cap on a hot radiator can cause terrific scalding. On most vehicles you don't need to open the radiator to check the coolant level. Find the plastic coolant reservoir. Its cap will clearly identify it as coolant storage. That tank is generally a translucent white so you can see the coolant level. It will also have two marks on one of the sides. One will read: "FULL COLD." The other will read: "FULL HOT" or something to that effect. As long as the coolant level stays between these marks, you can be confident there are no leaks in the system. If you find that the level goes below "FULL COLD," add some fluid (make sure the coolant you add is the same color as that which is already in your vehicle) and see your repair shop as soon as possible. A leak of any kind can cause overheating damage resulting in thousands of dollars.

**Belts and Hoses: Only check these items with the engine off!** Belts power under-hood components like the alternator, power steering, pump, water pump, air conditioner compressor, and emission control pump. Older models may have multiple "V" drive belts while most recent models have only one serpentine belt that winds across the front of the engine driving all the necessary components. For "V" belts, you should check for cracks and tightness. If you find any cracks, pieces of the "V" missing, or fraying on the flat side of the belt, it's time to get a replacement. If the belt is loose, there is a pulley that can be adjusted to tighten the belt and that should be done as soon as possible. Serpentine belts are wider than "V" belts, are flat on one side and are ribbed on the other side. Check the ribbed side for cracks or missing pieces. Small cracks are pretty normal but missing pieces indicates imminent failure. Serpentine belts have a self-tightening pulley. So, if it is loose, you have a pulley problem that needs to be quickly addressed.

Checking hoses should be done two ways, visually and by feel. A good flashlight can be very helpful here. Look for dry, cracked rubber – particularly where the hoses are attached to the engine or radiator. Also look for any "ballooning" of the hose. The bulge marks a weak spot that is close to rupturing and probably at the most inopportune time. Then, it's good to squeeze along the whole length of the hoses with your fingers looking for soft spots. If you find cracks, ballooning or soft spots, replace the hose as soon as possible.

If you can't see or reach the belts and hoses yourself, make sure you find someone who can check them for you at least every three months.

And, here's a safety hint. In Interior Alaska, it's a very good idea to carry a spare belt or belts in your vehicle. In super cold temperatures, belts don't particularly like to wind around sharp corners and, hence, they can fail prematurely. A spare belt or belts in the trunk or behind the seat can save you from a whole lot of inconvenience, from a large tow bill, or bodily damage.

Next week we'll cover a couple more a couple more essential periodic under-the-hood checks.