UNDERHOOD CHECKS

A reminder: when you do these checks, preferably before every cold start, you also look at tire inflation!

ENGINE OIL -

Find the engine oil dipstick and pull it out. The end of it should be wet with engine oil of a light greenish-brown to black color. Wipe this oil onto your forefinger and thumb and run the FINGER TEST ("give your oil the finger"). If it fails, it is way past time for an oil change. It fails if you can feel your fingerprints "grab" as you slide finger on thumb.

The dipstick has two marks (or holes) on it. The level of the oil wetting must fall between these marks, and they are nearly always 1 quart apart. If the level is low, you must add enough oil (of the correct kind) to bring the level up between the marks. If it is high (almost never seen), you must drain it down to between the marks, or else you will blow a seal and leak oil copiously from now on.

COOLANT -

Nearly all vehicles have an overflow bottle near the front of the engine compartment. It has two marks, intended for checking fill level dead cold. In that cold condition, coolant level should be at or slightly above the low mark. If it is not, add enough of the correct coolant to reach that level. (You add <u>mix</u>, not concentrate!)

Generally, in the hot condition, coolant levels in the overflow bottle should be up near the top mark. If it is lower, check at next cold start, and add if necessary.

BRAKE FLUID -

Power brakes or not, all vehicles have a brake fluid reservoir on the firewall or on top of the master brake cylinder, up high where you can see it. Most are now plastic, with max and min level marks; anywhere in between is fine. If there are no marks, open the cap to see the level. If necessary, add the proper brake fluid to bring it to about ¹/₂ inch from the bottom of the filler neck.

POWER STEERING FLUID -

Most cars now have power steering. If yours does, locate the reservoir, and check it exactly the same way as you check brake fluid. If low, be sure to add the correct fluid type, per your owner's manual.

TRANSMISSION FLUID -

This applies only to cars with automatic transmissions, which is now most cars. This is a second dipstick located away from the side of the engine and more toward its "rear" end

(away from the accessory belts). When you pull it out, the fluid is watery thin, slightly oily to the touch and smell, and reddish in color. If it is dark and smells burnt or foul, you need to see a transmission repair place by way of your regular mechanic.

The dipstick has some marks on it, but the procedure for checking level in most owner's manuals is not simple. There is an experience-based thing you can substitute. If you know the level to be adequate, then before the next cold start, pull the dipstick and look at the level. Do this before several cold starts in order for the observation to be reliable. Then use that cold start level as your guide: if that level falls, then add a little of the correct type of fluid per your owner's manual. It loads right down the dipstick tube, you will need a small funnel.

WINDSHIELD WASHER FLUID -

Most cars now have this feature. Somewhere, usually up front on one side or the other, is a plastic reservoir with bright blue fluid in it. This is windshield washer fluid. There may or may not be a fill level mark, if there is use it. Otherwise, fill to within about an inch or so of the cap. Use only windshield washer fluid (methanol and blue dye in water) for this. (This stuff is poisonous.)

BELTS AND HOSES -

Look at the accessory belt or belts. If they appear cracked on the inside surface, or frayed at the sides or edges, you need new belts. See your mechanic soonest.

Same thing goes for radiator hoses. This is best done before cold start. Feel for soft spots, as well as looking for cracks or odd-looking bulges. If you find any of these things, see your mechanic for new hoses soonest.

BATTERY -

Look at the terminals. You may have to lift a plastic cover or covers to see them. If corroded, these need to be cleaned. You can do this, but if you do not want to do it, have your mechanic clean the terminals next time you see him. If you "let this go" for months, it can cause your car not to start on a cold morning.

Every month or so, especially in hot weather, open the battery caps (if it has any), and observe the electrolyte levels. If low, top up with distilled water to a fraction of an inch below the bottoms of the filler necks. Be careful, this is dangerous and very corrosive acid we are dealing with! Mop up any spillage with a paper towel and discard it in the trash. Wash your hands with soap and water afterward (soap is basic and tends to help neutralize any acid you got on your skin).