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The PM Diagnosis: What's That Sound?

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A moving caris a complex symphony of sound, most of it reassuring--tires humming, engine rumbling, tailpipes roaring. But every now and then a dissonant note creeps into the mix--and the alert driver's ears prick up: Did you hear that? Here's a guide that identifies those oddball sounds and helps you sort out which conditions you can let slide and which ones mean repairs--and how fast you need to make them.

THUMPTHUMP

THUMPTHUMP

THUMPTHUMP

WHERE: From one or more tires.

WHEN: At low speeds, especially in the morning. Speeds up with car.

WHAT: Flat-spotted tire. As the tire rotates the flat spot thumps on the ground. Nylon-cord tires will flat-spot overnight and make this sound until they warm up. It's usually worse in colder weather. You can permanently flat-spot the tires by locking up the wheels, grinding massive amounts of rubber off the tread in one spot.

http://hearst.corp.printthis.clickability.com/pt/cpt?action=cpt&title=P...

URGENCY: Nada.

FIX: Replace your nylon tires with steel-belted tires. If you've ground down your tires like a pencil eraser, you can either live with the vibration until wear reduces the flat-spotting or buy new tires.

FFFFffff ttttFFFF ffff ttttFFFFffff tttt

WHERE: Under the hood.

WHEN: Most noticeable at idle.

WHAT: An exhaust manifold gasket has failed, venting hot exhaust gases to the air.

URGENCY: It's not getting better on its own. The blowtorch of corrosive gases will eventually damage the

manifold. Oh, by the way: Carbon monoxide from the leak may make you drowsy or dead.

FIX: Replace the exhaust manifold gasket before the leak eats a hole in the manifold.

Ticktick**tick**tick

WHERE: Under the center of the car, toward the rear.

WHEN: While in motion and varying with road speed.

WHAT: U-joint (rwd or 4wd only). A U-joint in your driveshaft has finally run out of grease, is getting loose

and is about to fail.

URGENCY: That's really just an urban legend about cars polevaulting over broken driveshafts when

U-joints fail at speed, right?

FIX: Replace all the U-joints and keep the new ones greased regularly.

EEEEEEEeeeee

WHERE: Inside the wheels.

WHEN: Slowing down; it's sometimes worse on damp days.

WHAT: Your brake pads are stroking the discs like a violin bow.

URGENCY: Sometimes they do that. Your brakes still work fine.

FIX: Try new pads, adhesive to hold pads to the piston or shims to insulate the piston from the pads. Another option: earplugs. (Sometimes the sound is difficult to eliminate.)

SSSSSSSSSS

WHERE: Under the hood.

WHEN: Anytime the engine is running, but it's most noticeable at idle speed.

WHAT: Vacuum leak. A rubber or plastic vacuum line or fitting has split or fallen apart.

URGENCY: If you're wondering why your Check Engine light is on and why your car idles poorly, this is probably why.

FIX: Reconnect or replace the line.

Clang

WHERE: Under the center of the car or truck, near the middle.

WHEN: Starting off at traffic lights. Most often heard on pickups with automatic transmissions, not manuals.

WHAT: The splines that allow the driveshaft to change length where it connects to the tailshaft are binding as you slow down and then releasing when you start off.

URGENCY: Annoying, but They All Do That--or at least some of them do it some of the time.

FIX: Packing the spline area with special grease helps for a month or so. Or just sell the car or truck.

ThunkThunk**Thunk**

WHERE: One or both front corners of the vehicle.

WHEN: Going around slow, sharp corners under light throttle.

WHAT: A CV joint that allows your front wheels to turn and still be powered is loose. The boot has failed

and let out all the CV joint's grease, or maybe it's just time for it to wear out.

URGENCY: Don't leave town. Don't use a lot of throttle around sharp turns. Your car will stop suddenly when the joint completely fails.

FIX: Replace the entire off ending half-axle.

CLUNK

WHERE: Front end.

WHEN: Initially, when parking; eventually, over small bumps.

WHAT: The ball joint that connects the suspension arm to the upright has lost its lubrication and the

metal-to-metal contact is wearing it out.

URGENCY: Make an appointment. Avoid bumpy roads, curbs and potholes.

FIX: Replace the ball joint.

GrumbleGrumble

WHERE: Front of the car.

WHEN: At idle. (Check for weeping coolant at the bottom of the water pump, too.)

WHAT: Water pump bearings.

URGENCY: When the bearings fail completely, the fan will pull forward and slice a nice big smile-shaped

chunk out of the radiator, making it leak profusely.

FIX: You need a new pump.

Yvyvooooowwwwrrrrrr

WHERE: Under the hood. **WHEN:** Whenever you rotate the steering wheel all the way to the left or right steering stop and hold it there.

WHAT: The pressure relief valve inside the pump is dumping excess power-steering hydraulic fluid back into the reservoir. It's supposed to do that, although maybe a little more quietly.

URGENCY: No big deal.

FIX: It's normal. Actually, you should check the level of powersteering fluid in the pump. Don't hold the wheel hard on the stop like that; it annoys pedestrians and is tough on the belt.

YEEEEeeeeaaaaawwwppp

WHERE: Under the hood.

WHEN: Right after startup until you rev the throttle a couple of times and the rubber warms up.

WHAT: Belt squeal. A loose or glazed belt, bad tensioner or misaligned pulley.

URGENCY: Make an appointment, and don't take a long trip. This won't go away on its own--until just before the belt fails.

FIX: Check belt tension and pulley alignment; replace the belt.

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