

# All transmissions need maintenance

By Tara Marion

Transmissions come in as many variations as automobiles themselves. Whether a car is a domestic or import, an automatic or manual, these are all factors that can affect the engineering behind a transmission.

Even so, there is a single basic idea behind a transmission: The transmission—which is actually a package of parts, a system—conveys the power produced by the engine to the wheels.

The transmission allows variations in the relationship between the engine speed (or rpm, revolutions per minute) and road speed (or mph, miles per hour). For example, upon starting, the automobile needs power at higher rpms but has to apply the power at a low mph in order to get the automobile underway. Compare this to highway cruising speed, which requires relatively little power, but a high mph.

As Steve Burtis, service manager at Maple Hill of Portage, 10028 Shaver Rd., explained, “As you drive along, your engine shifts gears so your engine’s rpm stays within a fixed range and allows your vehicle to drive from 0 mph to whatever speed you desire.” This is all the work of your transmission.

At approximately 10-15 mph, your automobile is in first to second gear, 15-25 mph is second to third gear and in overdrive at 40-45 mph, according to Mike Foy. “It’s like a chain reaction,” said the transmission builder at AAMCO Transmissions, 541 Portage.

When it comes to the chain reaction, the primary difference between an automatic transmission and a manual transmission is that the latter requires the driver to shift the gears by hand, whereas the former automatically handles the process of selecting the appropriate gear.

Some transmissions even have “fuzzy logic,” which means that the engine computer “talks” to the transmission computer and changes shift points based on your driving style. “If you’re an aggressive driver,” said Burtis, “it shifts forcefully and quickly. If you’re not an aggressive driver, it shifts slower with less force.”

No matter which type of transmission your automobile has, routine maintenance should be performed at regular intervals, said the two men. Burtis suggested following the maintenance guidelines listed in your vehicle’s owner’s manual.

When having your transmission serviced, a thorough inspection would include looking inside the pan for normal signs of wear or damage, examining the unit for external leaks, checking for proper shift points, replacing the filter and adding new fluid.

Even with routine preventative maintenance, an automobile’s transmission will eventually break down. Symptoms of transmission trouble would include external leaks (red fluid), noises and slippage, which Foy said meant that the clutch is no longer holding.

If these and/or other symptoms go undetected, they can damage internal components in the transmission. Foy said that repairing this damage can be costly. “When a part fails in a transmission, that part will make another part fail. That part will make another part fail. Sooner or later, the whole thing’s pretty much junk,” he said.

Finally, be aware that any amount of weight that causes you to notice a difference in the performance of your automobile could also be shortening the life of your transmission. Both Foy and Burtis cautioned against hauling anything, from a

trunk-load to a trailer, while the car's in overdrive. The reason, they said, is that the transmission will overheat. Again, noted Burtis, follow the guidelines in your owner's manual.

According to the two men, remembering the tips above and following a regular maintenance routine will help extend the life of your vehicle's transmission.