

Today's Auto Repair

With Chip Stewart

-Engine or Transmission?-

When you come to a stop does your car stall? While driving down the highway do you feel a shudder? Have you ever tried to pass another car and felt like someone abruptly applied the brakes? You wouldn't be alone if you blamed the transmission for causing these problems. In fact, these problems may be due to something else.

We are all aware that late model cars use a computer to control the engine. Many cars use the same computer or another computer which shares the same information, to control the fuel injection, ignition and transmission. Automotive engineers did this in order to achieve more efficiency and better mileage. This means that your engine and transmission are connected together in more ways than just simply being bolted to one another. Since the engine and transmission are controlled and work together, they are referred to as a "powertrain".

Consider that shudder you felt cruising down the highway. The computer is using sensors on the engine and transmission to detect such things as throttle position, vehicle speed, transmission input speed, stop light switch position, etc. As you drive the car, you are constantly changing the demands of the powertrain (i.e. acceleration, cruising, passing, coasting and idling). The computer recognizes this by monitoring various sensors. To improve fuel economy, the computer will (under the right conditions) engage a clutch inside the torque converter.

NOTE: The torque converter is a device located between the engine and transmission. It is filled with hydraulic oil (automatic transmission fluid) and considered part of the transmission. The hydraulic oil coupled with the design of the torque converter allows the engine to run slowly at an idle (like being disconnected) with the vehicle stopped. At higher engine speed, torque is transferred through the hydraulic oil to the transmission. It has an internal clutch that is applied at road speeds to improve fuel economy.

Without special equipment and experience, no one can tell if a shudder is caused by something slipping inside the transmission, the torque converter, a weak spark, a dirty fuel injector or a loose electrical connection. Your transmission specialist is a highly qualified professional and can best determine what, if anything your transmission needs. Once again, proper diagnosing is the key.

