

On the Line

Troubleshooting Systems that Share Similar Symptoms It Makes for a Difficult Diagnosis

The complaint documented on the repair order was simple... "I have a problem with my brakes. It feels like the brakes are hanging up, momentarily." Performing a complete brake inspection failed to identify a problem with the braking system.

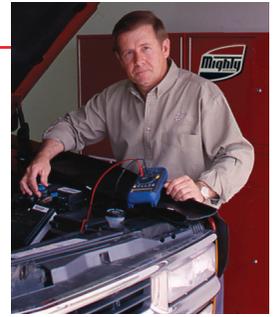
Making a repair based solely on the customer's description of the symptoms can be a costly and uneventful exercise. It is imperative that the technician speak directly with the customer to obtain as much information as possible, and preferably take a road test with them prior to recommending any course of action. Had the technician done this, the troubleshooting may have taken a different course. And maybe not, as the symptoms can be elusive. When a road test was eventually taken, the technician described the symptoms as feeling like the vehicle had been bumped in the rear by another vehicle when stopping or accelerating from a stop. More than a few experienced technicians have been fooled by the symptoms and solutions described in this writing. On our first encounter with these symptoms, we were certain the rear axle housing was shifting due to loose shackles bolts.

Driveline, suspension and braking systems share some common characteristics when driveability symptoms or problems occur. Few vehicle owners appreciate the complexity of today's vehicles; much less understand how difficult it can be for the technician to make an accurate diagnosis on a system or component. Unless the technician takes a methodical approach, it is easy for him to miss the diagnosis, and this can happen to the most experienced technician.

DRIVELINE BUMP

The vehicle in question was a 2009 Chevrolet Silverado. The condition is best described by a bump in the rear by another vehicle or a brake grab/release sensation during a stop or on the initial acceleration following the stop. Instead of the brake related condition as previously thought, the condition was due to a slip/stick condition between the driveshaft slip yoke and the transmission (4L60 Auto/2WD) output shaft splines.

When the brakes were applied and the vehicle slowed to a stop, the driveshaft slip yoke would move forward into the transmission, then rebound backward, creating the bumping sensation. Vehicles affected include: 2007–2008 Chevrolet Avalanche, Suburban, 2007–2009 Tahoe, 2007–2010 Silverado, GMC Sierra (new body style) w/single-piece driveshaft, 2007–2008 GMC Yukon XL, 2007–2009 GMC Yukon.



By Larry Hammer
Technical Services

GM'S RECOMMENDED REPAIR

GM has acknowledged the symptoms described in this article and recommends two different procedures to circumvent the symptoms. This is basically a two-option procedure:

First Procedure... GM recommends removing the driveshaft and thoroughly cleaning the splines on the slip yoke that attaches to the transmission output shaft. Once cleaned, lubricate the splines in the yoke with GM P/N 19257121 (Canada P/N 19257122) lubricant with a brush to insure the grease completely covers the spline area. Once this is

done, reinstall the driveshaft and road test the vehicle to verify the symptom has been corrected.

Second Procedure... If the first procedure fails to resolve the slip/stick symptom, or if the symptoms recur later, a revised nickel-plated slip yoke is available from GM. For those vehicles still under warranty, GM will not authorize the revised slip/yoke until the first procedure has been performed and failed to correct the condition. The cases that we have been involved in required the revised yoke to permanently put an end to the symptom.

For additional information and other vehicle manufacturers that have encountered the same symptoms and characteristics, ask your Mighty Rep for a copy of Tech Tip #161 — ELUSIVE DRIVELINE AND BRAKE RELATED SYMPTOMS. The Tech Tip also addresses "driveline clunk" and the vehicle manufacturer's position concerning the symptoms.

www.mightyautoparts.com



"HE SAYS WHEN HE STOPS, IT FEELS LIKE A LITTLE BUMPER CAR
PLOWS INTO HIM FROM BEHIND. HE SAYS IT REALLY BOTHERS THE
TWELVE OTHER GUYS WHO RIDE WITH HIM."