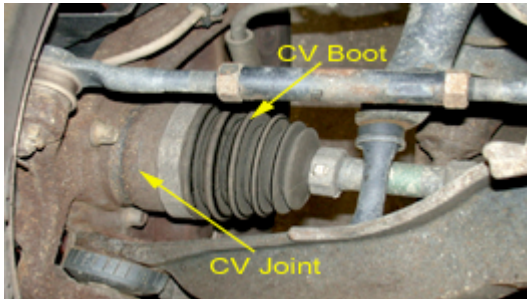




Drivetrain: CV Shaft, Boots & Joints



Description: The constant-velocity (CV) shaft, boot and joints are all part of the same assembly and are used on front-wheel-drive and many four-wheel-drive vehicles. One shaft assembly is used per side, and is sometimes dubbed a half-shaft. The transmission's output shaft connects to the inner CV joint. The inner joint has the ability to slide in and out and therefore make minor changes in the overall length of the shaft assembly. This is important to allow for changes in suspension travel and ride height. From there, the main portion of the axle shaft connects the outer CV joint. Both the inner and the outer joints are covered with a protective boot. The outer CV joint has the inherent ability to provide even torque transfer, even while the wheels are turned sharply. The CV joint then connects to a stub shaft that joins with the wheel hub and bearing assembly. Older front-wheel-drive vehicles used to use unequal length shafts, which led to a driving characteristic known as torque steer pulling to one side while accelerating. Today, most cars have equal length shafts on both sides, which neutralizes the effects of torque steer.

Purpose: CV axle shaft assemblies fulfill the demanding role of having to supply torque to the wheels while turning and while the suspension is moving up and down.

Maintenance Tips/Suggestions: Have your car's CV boots inspected at every oil change. CV boots can be easily damaged from rocks, sticks, ice and just normal wear. When a CV boot tears or cracks, the lubricant packed inside is free to move out of the CV joint and dirt is now allowed into the joint. Unless the damage to the boot is discovered quickly, it's likely that the joint will also need to be replaced along with the boot. A replacement axle may be the wisest choice, depending on cost. The symptom of a bad outer CV joint is usually a clicking noise while turning. A shudder, vibration or clunking sound when accelerating or decelerating usually means trouble in the inner CV joint. Don't ignore the warning signs of a bad CV joint; you could lose steering or be stranded. Take your car to a qualified service professional as soon as possible to have the source of the drive train problem pinpointed.