

CV Axle Bearing Symptoms

The CV (constant velocity) axle is similar to a driveshaft's U-Joint, in that it uses a flexible joint to allow power transfer through a rigid shaft at varying angles. A CV joint varies only in that it uses what amounts to two sets of " + " shaped armatures clocked at a 45-degree angle to each other in order to handle the additional load of lateral wheel movement. These axle types and their bearing have a number of problems, most of which manifest as sounds and vibrations before failure.

Common Noises

Bad wheel bearings usually emit either a deep grinding noise, a screeching sound or a noise that resembles sand being ground under a shoe on concrete. In the beginning phases of failure, this sound can be faint, possibly only audible while driving through tunnels or over walled bridges. It will get louder over time, however, and will become impossible to ignore before long. This noise will get louder and more pronounced with speed.

Vibrations

Depending on the type and location of the failure, the type of vibrations emitted by failing bearings will vary. Generally, the vibration will begin as an intermittent slight thrumming that can be felt through the floor. This thrumming will gradually become more pronounced and will eventually begin to feel like a steady stream of large pebbles pelting the underside of the [car](#). In severe cases, this vibration may be felt through the steering wheel. Like the sound encountered, this vibration will vary directly with speed.

Locating the Fault

In most [cars](#), it's fairly easy to locate the source of the bad wheel bearing. As the bearing encounters load, its sound and vibration will become more definite. If the symptoms get worse under the weight transfer of hard braking, then it's coming from the front. You can test [car](#) laterally in a smooth empty area such as a vacant concrete parking lot. When you turn the wheel at speed, weight transfers to the tire on the outside of the turn. If the sound increases when you turn right, the fault is on the left side, and vice-versa the right.

Potential Danger

A wheel bearing that has begun to manifest symptoms is on its way to failure. Allowing a bad wheel bearing to progress to the point of constant vibration is incredibly dangerous, as the bearing could fail under the heat of sustained usage and lock at any time. In extreme cases of bearing failure on some cars, the whole casing can shatter, causing the entire wheel assembly to fall off the car while under load.

Solution

The only way to service a bad wheel bearing is to replace it. On most modern front-drive cars, the inner and outer hub bearings come as a pre-assembled cartridge. This makes replacement significantly more expensive than on older [vehicles](#) without cartridge systems, but does make it considerably faster and