



PEDDERS
CV SHAFTS



What is a CV Shaft?

With the majority of vehicles on our roads today being either front wheel drive or all wheel drive, CV shafts, which are the drive shafts that carry the power from the engine and transmission to the wheels, are one of the most common components requiring replacement.

Pedders comprehensive range of new replacement CV Shafts are supplied with Constant Velocity Joints (or CV joints). CV Joints allow a rotating shaft to transmit power through a variable angle, at constant rotational velocity, without an appreciable increase in friction or play. They are mainly used in front wheel drive and all wheel drive cars. However, rear wheel drive cars with independent rear suspensions typically use CV joints at the ends of the rear axle half shafts.

There are two basic applications of CV joints, one near the wheel called the outboard joint and the other close to the transaxle known as the inboard joint.

They are also categorized according to their operating requirements. If a CV joint is fixed and does not move in or out with movements of the driveshaft it is known as a fixed CV joint. If the joint does move in and out, usually up to 40mm, it is known as a plunging CV joint.

Generally speaking, outboard CV joints are fixed and inboard CV joints are plunging. There are exceptions to this however there must be at least one plunging CV joint in every drive shaft. Considering their design and the constant loads they bear, it's not surprising that CV joints have a limited life and are particularly prone to accelerated wear due to contamination.



CV joints are protected from contamination by air tight rubber boots secured with metal retaining clips. Failure of these boots is the primary reason for CV joint failure. A split or broken boot will eventually cause the failure of the CV joint in all cases.

Maintenance is usually limited to checking that the rubber boot that covers them is secure and not split or broken. If the rubber boot is damaged, the lubricating grease that the joint is packed with, will be thrown out. The joint will then pick up dirt and water that will cause the joint to overheat and wear, and the grease can also contaminate the brakes. In the worst cases, the CV joint may separate, causing the vehicle to lose the ability to drive. Damaged CV joint boots will usually cause a car to fail a safety inspection.

Pedders Range of New Replacement CV Shafts

Pedders comprehensive range of replacement CV Shafts are made to exacting specifications including European SGS international quality ISO9001, QS9000, VDA6.1 and TS16949 certifications. They also come with our 2 year 40,000km nationwide warranty. Pedders CV Shafts are complete new units - not reconditioned. This means new inner and outer joints, shafts and boots which make up a complete new unit. Many reconditioned units still contain a high percentage of second hand componentry which can compromise the integrity of their performance or durability.





Faultfinding and diagnosis

The two main failures are wear and partial seizure.

Wear in the outer joint usually shows up as vibration at certain speeds, a bit like the vibration caused by an unbalanced wheel. To determine if the joint is worn, find a big empty car park and drive the car slowly in tight circles, left and right. Worn joints will make a rhythmic clicking or popping noise while driving slowly on full steering lock. Wear in the inner joints shows up as a “clunk” when applying power, or if severe, when lifting off the throttle.

Partial seizure causes a strange “pattering” sensation through the suspension. It is caused by the joint overheating, which in turn is usually caused by the outer joint boot having split or broken, allowing the joint to throw out its grease.

Because CV Joints are similar to sealed bearings and are under enormous loads, contamination caused by split or broken boots is the primary cause of rapid wear and failure.

For further information or a comprehensive check of your vehicle talk to your local Pedders Suspension specialist.



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