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Service Tips and Best Practices

Importance of Frequent CV Boot Inspection

Brand	Duraflex	Product	CV Boot	Date	June 2021
Part Number(s)	Various				

Constant Velocity joints are found on either end of drive shafts (half shafts) on non-solid axle equipped vehicles. The inner CV joint connects the drive shaft to the transmission or differential and the outer CV joint links the drive shaft to the wheel end.

At both ends, the CV joint is immersed in grease and protected by a CV boot. Typically, a CV joint will not require any maintenance over its service life, especially if the CV boot remains intact.

To protect the integrity of the CV joints and to extend overall service life, it is important to frequently inspect CV boots and replace as soon as a defect is determined.

The most common failure mode of a CV boot is a crack, puncture or other damage which perforates the boot. This may arise from regular wear and tear or impact with road debris. Once the boot is punctured, water and contaminant ingress will begin to displace vital lubricating grease from the CV joint.

As such, it is important to regularly inspect for indications of a damaged CV boot. These include but are not limited to:

- Visual inspection for tears, punctures and or material separation of the boot
- Visual inspection for missing boot clamps (two per boot)
- Visual inspection for the presence of grease. Grease which has seeped out from the boot typically will be saturate the boot and surrounding components (drive shaft, wheel, suspension parts)

In most cases, if a torn boot is discovered early on, a simple replacement of the boot may prevent further damage to CV joint.

For a thorough repair, it is considered prudent to also verify the performance of the affected drive shaft, particularly if when replacing the CV boot, the CV joint was found to be dry.

To inspect for a out of specification drive shaft, the below tests may be performed. This is not an exhaustive list.

- Verify for play in the drive shaft. There should be no to very minimal movement when the drive shaft is moved in any direction (up/down and sideways).
- Verify abnormal sounds and or vibrations during a test drive. Usually a knock, pop or click will emanate from an out of spec drive shaft as the vehicle is in forward or reverse motion. Vibrations will rise in frequency as vehicle speed increases.

Always ensure to refer to the factory service manual for correct diagnosis, removal and installation procedures, torque and alignment values and sequences.