

**Application: All vehicles with clutch pulleys**

- ▶ **The Symptoms:**
  - Noisy, Whining and Squealing noises from the drive belt area
- ▶ **The Cause:**
  - Bad Alternator Clutch Pulley
- ▶ **The Solution:**
  - Replace the Alternator Clutch Pulley



Clutch Pulley and the end cover which is used to keep debris and moisture from getting into the pulley and damaging the bearings inside.

**Faulty belts and tensioners will shorten the life of the alternator clutch pulley.**

**What is the purpose of an alternator clutch pulley?**

When a vehicle has a loud, constant squealing noise while driving, it is essential to check both the belt and tensioner. If the belt and tensioner are both good, the issue may lie with the alternator pulley. On average, pulleys last about 60,000 miles, but faulty belts and tensioners will also shorten the life of the pulley. It is critical to inspect these parts routinely.



Visible in the above cut-out of the clutch pulley, there are small needle bearings. These needle bearings help to eliminate belt chirping sounds when the engine slows down quickly. When the clutch pulley is functioning correctly, it allows

the belt to turn the alternator in one direction and spins freely in the opposite direction. If the pulley is bad, it can lock up or spin free in both ways, not allowing the alternator to charge. The clutch pulley is designed to alleviate stress on the belt drive system and the components within that system, allow the alternator rotor to coast when the engine is shut down, and reduce belt slippage. The clutch pulley will allow a longer life of the tensioner and the bearing's in the alternator and water pump.

When a clutch pulley has failed, engine speed fluctuations can be passed directly to the alternator and drive belt system. This places stress on the drive belt, tensioner, and alternator and can shorten the lifespan of these components as the drive belt is effectively trying to speed up and slow down the alternator in relation to engine speed changes. With the overrunning clutch pulley, only accelerating engine torque is applied to the alternator. If the clutch pulley has failed, it should be replaced with the correct pulley type for the serviced vehicle.

**TECHNICAL SUPPORT**  
**800-228-9672**  
ASE Certified Technicians are Standing by 7 days a week.



motorcar parts of america, inc.  
motorcarparts.com

