



**belts
hose**

ALTERNATOR DECOUPLER PULLEYS

*Designed, Engineered
and Produced by the
Original Equipment
Manufacturer.*



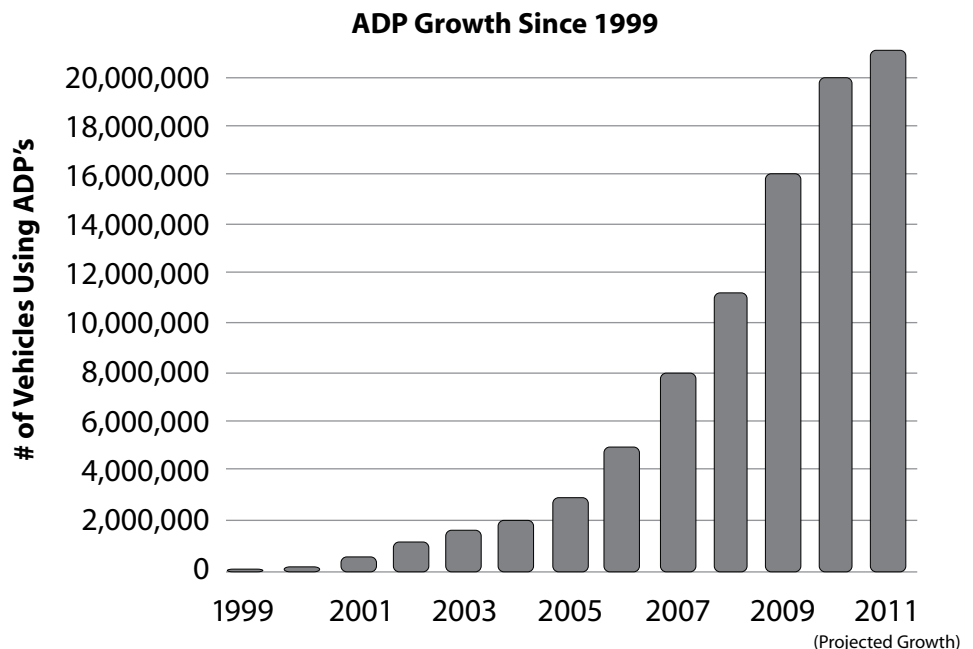
Evolution of Alternator Pulleys

Solid Serpentine Alternator Pulleys and Automatic Belt Tensioners were first utilized by Original Equipment Manufacturers (OEMs) in 1979. Their sole purpose was to transmit power to the alternator using one belt and tensioner eliminating the need for multiple V-Belts within the Accessory Belt Drive System (ABDS).

Since that time, OEMs have further enhanced alternator pulley technology with the introduction of One-Way Clutch (OWC) Pulleys and Overrunning Alternator Decoupler (OAD) Pulleys. Both of these advancements are the culmination of years of research and development to help improve the performance and efficiency of car and light truck engines.

OWC's were first used in 1997 followed by the OAD in 1999. Today, more and more vehicle manufacturers are recognizing the performance gains achieved with these pulleys and have designed them into their belt drive systems.

OAD Pulleys introduced in 1999 have grown to over 20 million vehicles Worldwide.

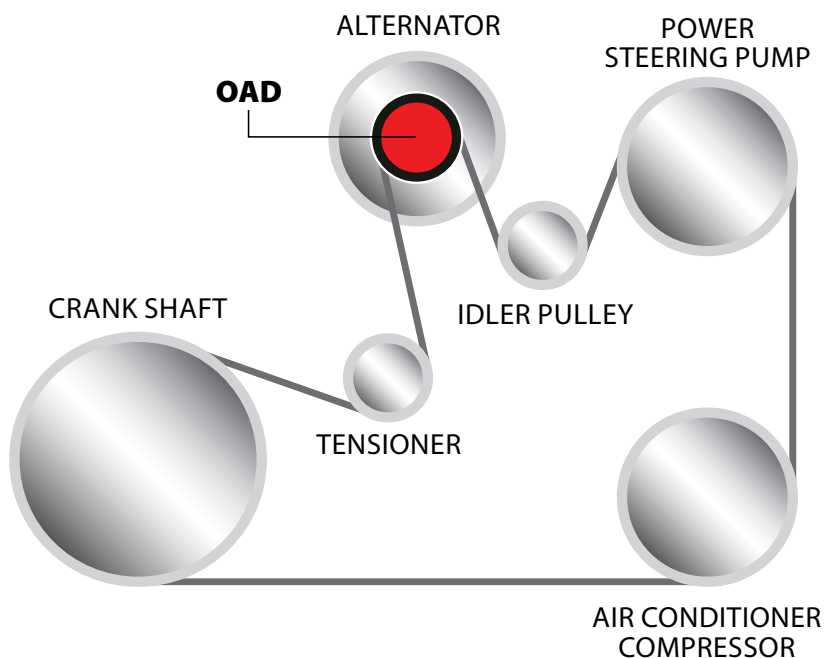


NAPA Belts/Hose OAD Pulleys Absorb Engine Vibration for a Quieter, Smoother Ride and Better Performance

Since 2004, NAPA belts/Hose has provided the Aftermarket with OWC Pulleys and now offers OAD Pulleys. NAPA OAD Pulleys provide unique levels of engine vibration absorption within the ABDS. With its patented Torsion Spring, the NAPA OAD Pulley is able to isolate vibrations throughout the system to ensure peak performance of your engine. While the clutch mechanism is engaging and disengaging the alternator, the patented Torsion Spring is constantly absorbing vibration.

Advantages of OADs

NAPA Belts/Hose Overrunning Alternator Decoupler Pulleys (OAD's) create a quieter, and longer lasting Accessory Belt Drive System (ABDS).



NAPA Belts/Hose OAD's Reduce:

- Total System Vibration
- Tensioner Motion
- All Loads on All Accessories
- Steering Shudder

NAPA Belts/Hose OAD's Improve:

Life and longevity of all accessory components including the A/C Compressor, Power Steering Pump, Tensioner and the Alternator Accessory Drive component life.

More and more OE's are recognizing the performance gains achieved with OAD Pulleys and designing them into their vehicles.

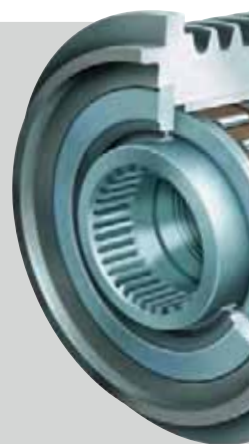
Types of Alternator Pulleys

OAD's allow lower system tension which means the alternator, water pump, and other accessory bearings will last much longer.



The Solid Alternator Pulley

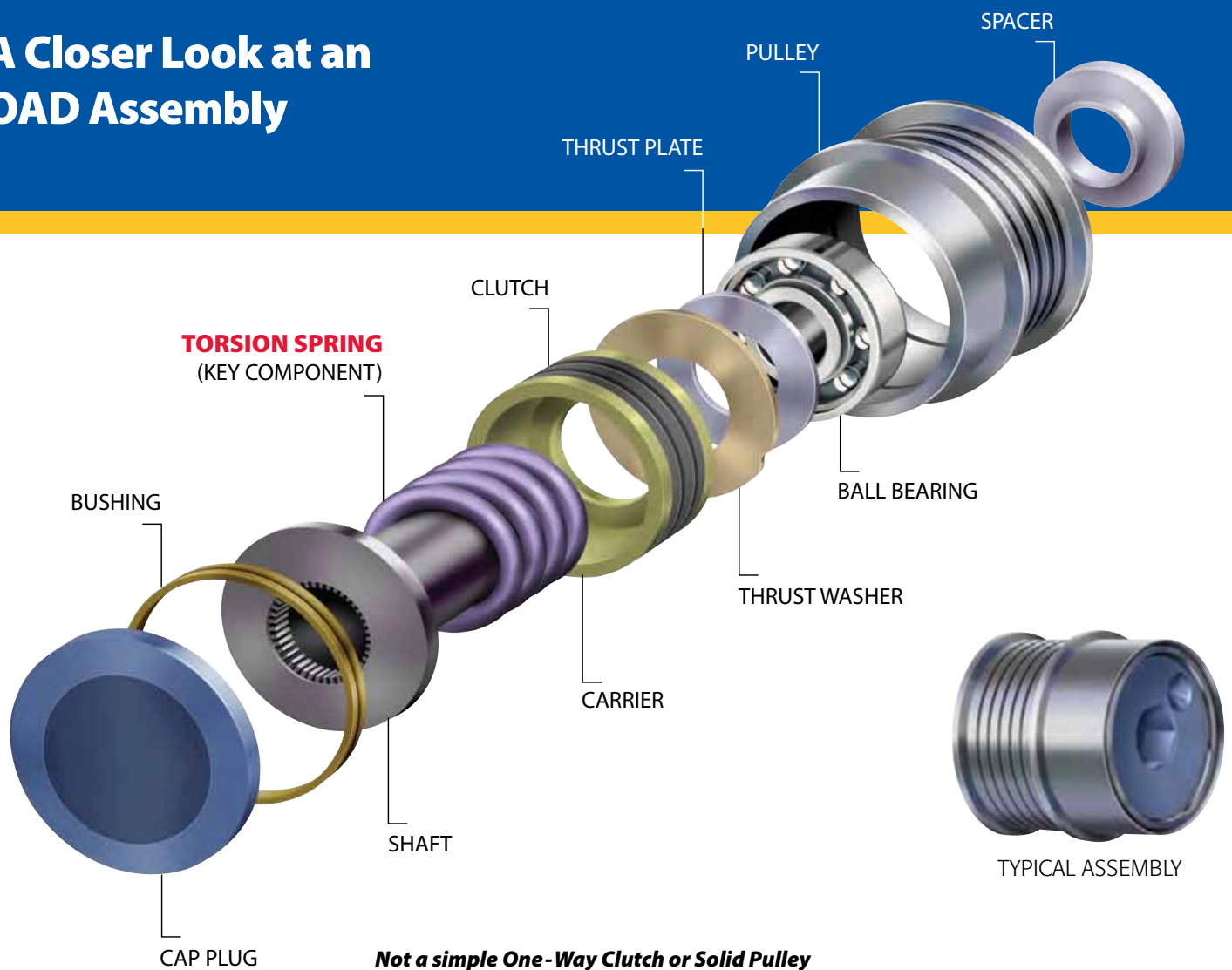
Used to be the industry standard and has been around for many years. It has evolved from the V type to the V-ribbed type (serpentine belt). Its only purpose is to drive the alternator via the belt. If your alternator has a solid pulley, only replace if damaged, rusted, or worn.



One-Way Clutch

Has a simple one-way clutch inside the pulley that allows the rotor of the alternator to coast to a stop. This "overrunning" feature eliminates the engine decelerates quickly, causing steering or transmission issues.

A Closer Look at an OAD Assembly

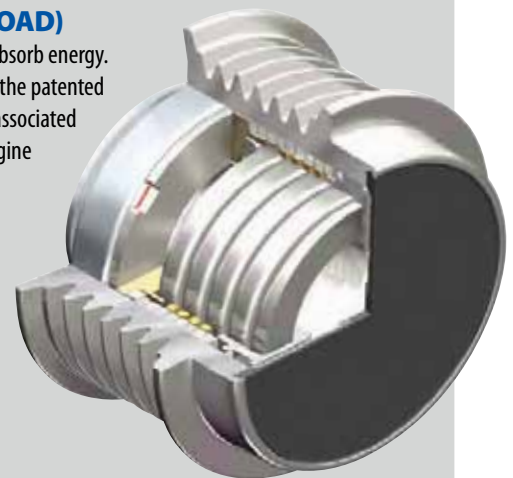


The Overrunning Alternator Decoupler Pulley (OAD)

Not only has a one-way clutch inside, it also incorporates a torsion spring to absorb energy. The effects of the internal clutch are the same as mentioned above; however, the patented internal torsion spring design is the key to the much higher level of function associated with the OAD. The internal spring is tuned (engine specific) to absorb base engine vibrations (cylinder firing pulses) before they reach the alternator rotor and negatively affect the accessory drive. With the OAD installed you will see much less tensioner motion, reduced noise, vibration, and harshness and an all around more robust accessory drive.

One-Way Clutch Pulley

The pulley. This internal clutch allows a stop when the engine is shut down. It prevents the "chirp" sounds that occur when the belt slips (engine shut down or shifting).



** Never use a Solid or One-Way Clutch Pulley on a vehicle designed with an OAD Pulley. Downgrading will compromise performance and will lead to Accessory Belt Drive System problems including eminent, premature failure of the Serpentine Belt and Tensioner. For the Original Equipment Parts, NAPA Belts/Hose OAD Pulleys are the only sure way to go.*

NAPA's Supplier is a Global Leader in OE System Design

With almost 100 years of innovation and experience, the supplier of NAPA Belts/Hose delivers the highest quality parts in the market today. As OE design experts on the Accessory Belt Drive System (ABDS), NAPA's supplier now offers a full line of Alternator Decoupler Pulleys (ADP) including Overrunning Alternator Decoupler (OAD) Pulleys and One-way Clutch (OWC) Pulleys. Every NAPA Belts/Hose ADP is the Original Equipment Part designed for each specific application.

*For more information about NAPA
Alternator Decoupler Pulleys,
talk to your NAPA Heating/Cooling
Group Representative or visit:
www.napabeltshose.com*

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