
Designed, Engineered
and Produced by the
Original Equipment
Manufacturer.

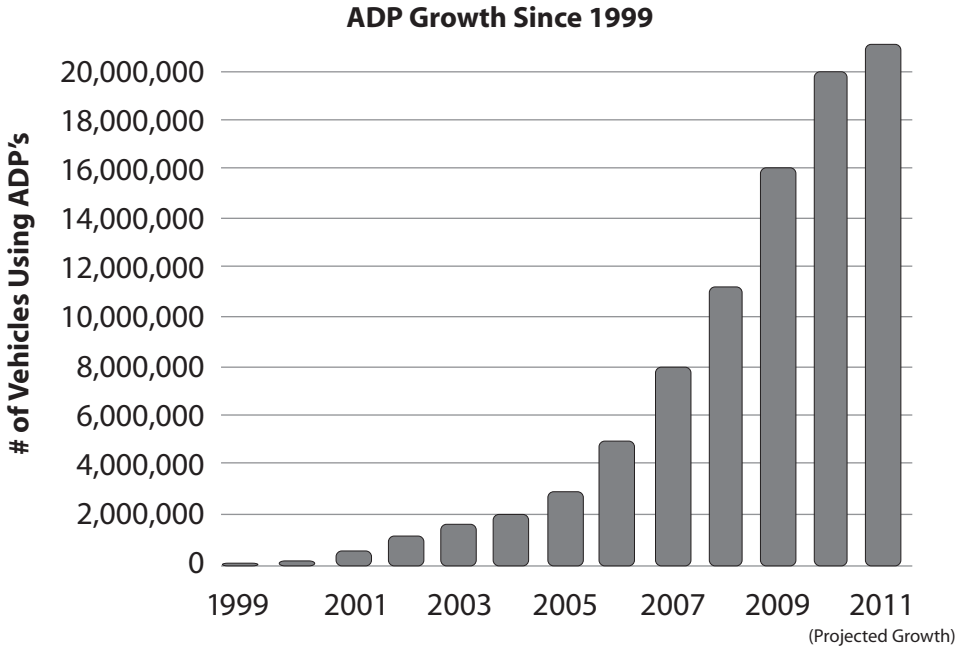
Evolution of Alternator Pulleys

Solid Serpentine Alternator Pulleys and Automatic Belt Tensioners were first utilised 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, OEs 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.

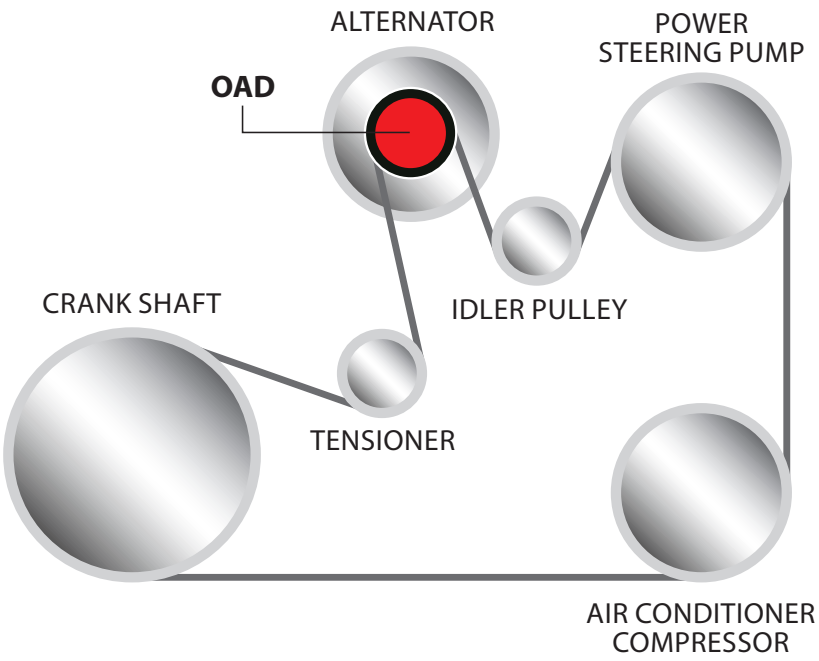


Gates Decoupler Pulleys Absorb Engine Vibration for a Quieter, Smoother Ride and Better Performance

Since 2004, Gates has provided the Aftermarket with OWC Pulleys and now offers OAD Pulleys. Gates OAD Pulleys provide unique levels of engine vibration absorption within the ABDS. With its patented Torsion Spring, the Gates 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

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



Gates OAD's Reduce:

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

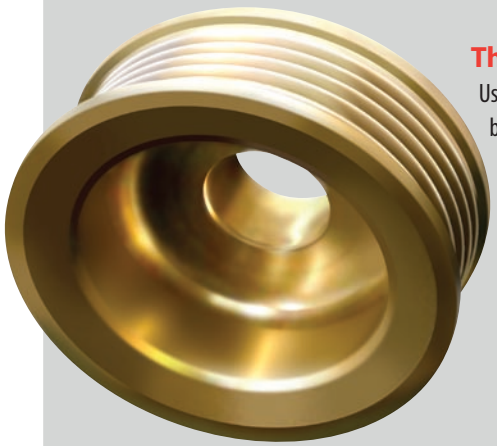
Gates OAD's Improve:

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

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

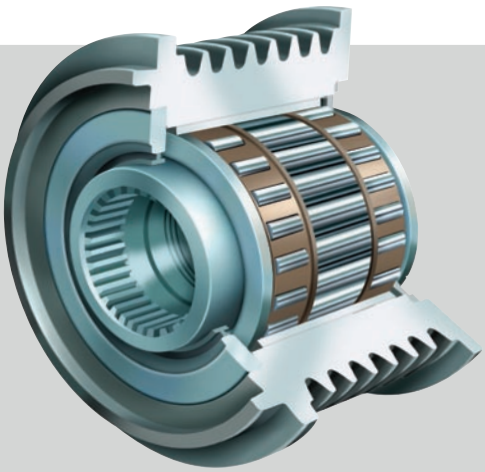
Types of Alternator Pulleys

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



The Solid Alternator Pulley

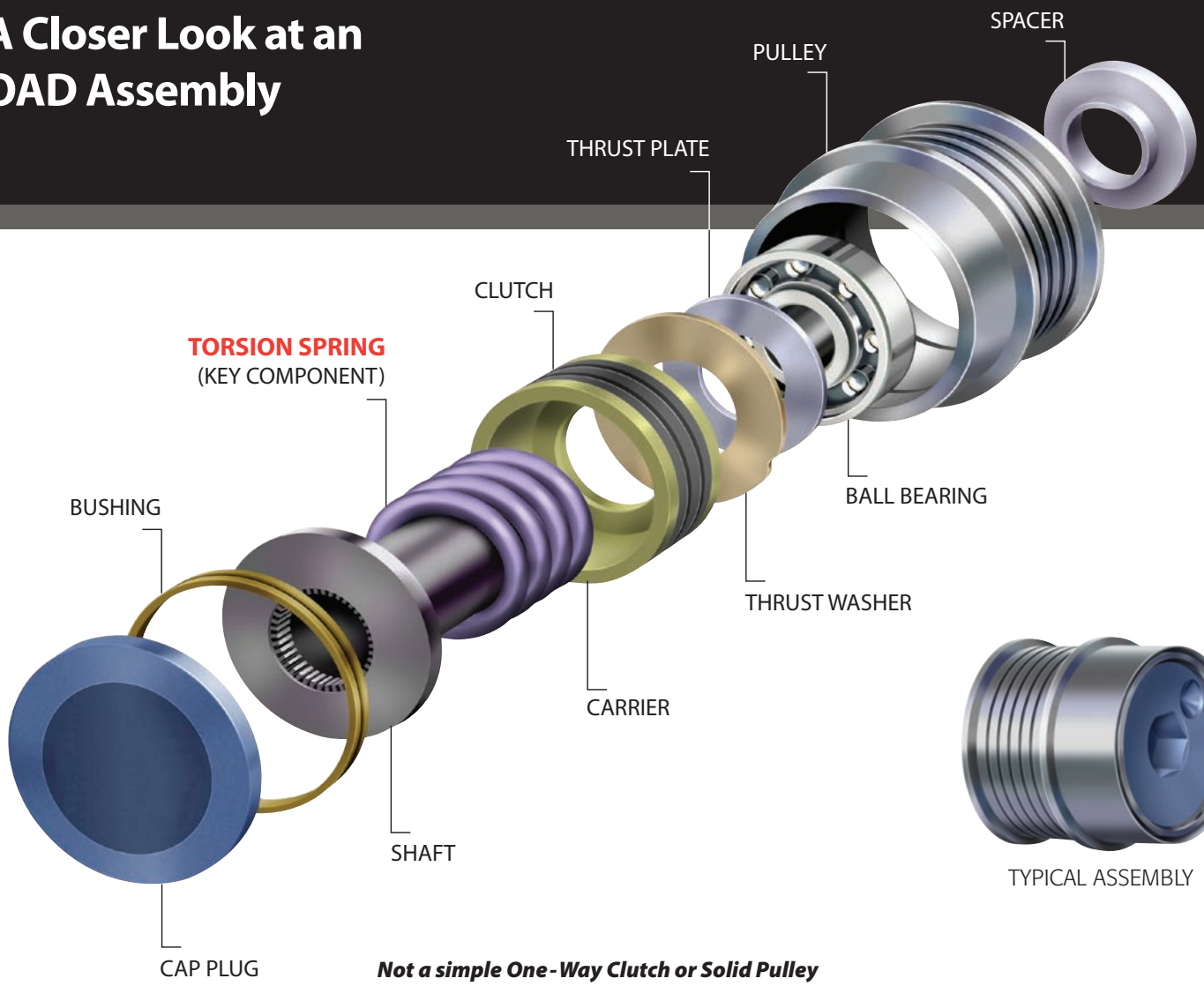
Used to be the industry standard and has been around for many years. It has evolved from the V type to the V-ribbed type (serpentine belt). Its only purpose is to drive the alternator via the belt. If your alternator has a solid pulley, only replace if damaged, rusted, or worn.



One-Way Clutch Pulley

Has a simple one-way clutch inside the pulley. This internal clutch allows the rotor of the alternator to coast to a stop when the engine is shut down. This "overrunning" feature eliminates "chirp" sounds that occur when the engine decelerates quickly, causing the belt to slip (engine shut down or transmission shifting).

A Closer Look at an OAD Assembly

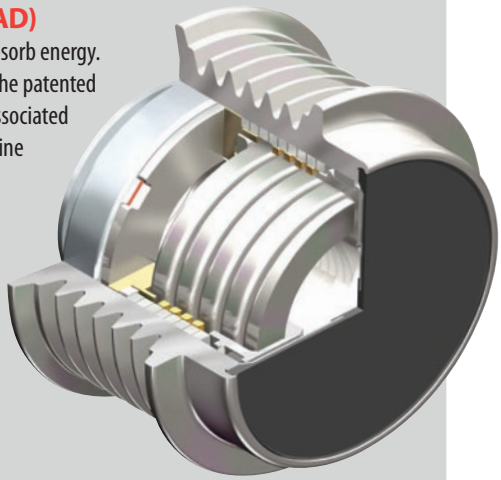


TYPICAL ASSEMBLY

Not a simple One-Way Clutch or Solid Pulley

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.



* *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, Gates OAD Pulleys are the only sure way to go.*

ADP Applications

Make	Models	Years	Engine	Part #	ADP Type	Tool Part #
Audi	A3	2006-2009	3.2L	37013P	OWC	91024-1
	TT	2000-2006	1.8L			
Chrysler	Grand Voyager	2001-2007	3.3L and 3.8L	37015P	OAD	91024-3
	Jeep	2006-2009	1.8/2.0/2.4L	37018P		
Mercedes-Benz	E300D	1996-1997	3.0L Diesel	37011P	OWC	91024-1
Porsche	Boxter	2000-2008	2.7L and 3.2L	37014P*	OWC	91024-1
Toyota	Avalon	2005	3.5L	37026P	OAD	91024-3
	Avalon, RAV4	2006-2010				
	Camry, Rav 4	2005-2007	2.4L	37017P	OAD	91027-3
	Camry	2007-2010	3.5L	37026P	OAD	91024-3
	Corolla	2007-2009	1.8L	37015P	OAD	91027-3
	4 Runner	2010	2.7L	37025P*	OAD	91024-3
VW	Beetle	1998-2001	1.9L diesel	37012P	OWC	91024-1
	Passat, Jetta	1995-2002		37010P		
	Passat, Golf, Beetle, Jetta	1998-2009	1.8 & 2.0l gas, 1.9L Diesel	37013P		

* Parts and Tools will be available soon for these applications.

Gates is a Global Leader in OE System Design

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

For more information about Gates Alternator Decoupler Pulleys, contact your local Gates Representative or visit: www. gates.com/adp

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