

ACCESSORY BELT DRIVE SYSTEM



DRIVEALIGN® OVERRUNNING ALTERNATOR PULLEY



LENGTHEN THE LIFE OF YOUR COMPONENTS

Every time the engine decelerates, for example during gear changing or engine shutdown, the alternator's inertia creates resistance against the belt. An overrunning alternator pulley (OAP) allows the alternator to "free-wheel" or "overrun" when the belt suddenly slows down. This prevents the belt from slipping and reduces vibration, wear and chirp noises.

EVERYTHING FOR A SMOOTH ACCESSORY BELT DRIVE SYSTEM

Almost every recent car model is equipped with an overrunning alternator pulley. That is why Gates offers a line of DriveAlign® overrunning alternator pulleys. Gates has everything you need to guarantee a fully reliable accessory belt drive system. In addition, Gates offers Micro-V® kits holding all components necessary for a complete overhaul of the system – also kits with matching overrunning alternator pulleys.

THE OVERRUNNING ALTERNATOR PULLEY YOU NEED

The Gates range of overrunning alternator pulleys covers all major models in the market. Gates also offers the required removal and installation tools. At www.gatesautocat.com you will find an OE-quality overrunning alternator pulley that fits your application perfectly!

DRIVEALIGN® OVERRUNNING ALTERNATOR PULLEY

WHAT DOES AN OVERRUNNING ALTERNATOR PULLEY DO?

Seat heating, air conditioning, communication systems and other additional accessories require extra electrical power, which causes the vehicle manufacturers to utilise ever heavier alternators, compromising the belt drive system even more. Therefore drive specialists created the overrunning alternator pulley to counteract this compromising situation. Millions of vehicles are now factory-equipped with an overrunning alternator pulley, which, as opposed to a conventional solid alternator pulley, absorbs vibrations in the accessory belt drive system.



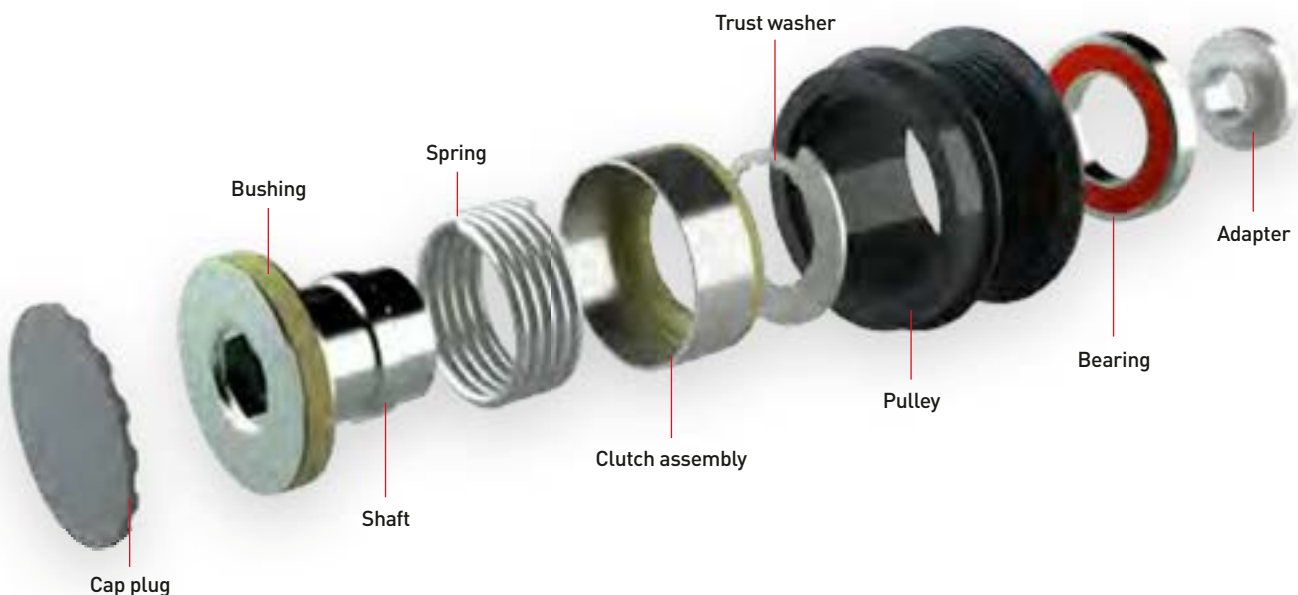
BENEFITS

- › Allows the use of alternators with increased power output.
- › Reduces the influence of the alternator mass on the belt drive.
- › Decreases wear and tear on all belt drive components.
- › Eliminates belt slip and therefore noise.
- › Absorbs vibrations and fluctuations.
- › Increases the life span of all accessory belt drive components.

CONSTRUCTION FEATURES



- › Pulley with appropriate multi-ribbed belt profile.
- › Internal overrunning clutch unit with double bearing support, allowing the alternator rotor to overrun when the engine decelerates or is shut down.
- › Protective cover.
- › In addition to the above features, some pulley models incorporate a patented internal application-specific torsion spring which isolates torsional vibration. These pulleys with a higher level of functionality are called overrunning alternator decouplers (OAD).



REPLACE THE OVERRUNNING ALTERNATOR PULLEY WHEN SERVICING THE ACCESSORY BELT DRIVE SYSTEM

Overrunning alternator pulleys are the key element to reduce wear to the accessory belt drive system. They take away much of the abuse in the system. Failure of the pulley, wear and tear on the inner spring and malfunction of the overrunning clutch mechanism can occur. A damaged overrunning alternator pulley cannot effectively dampen vibrations nor properly transmit power to the alternator.

GATES RECOMMENDS:

- › Check the overrunning alternator pulley when replacing any accessory belt drive component and replace if necessary.
- › Replace the overrunning alternator pulley at the vehicle mileage or age specified by the manufacturer.
- › Always replace the overrunning alternator pulley when you install a new alternator.
- › Replace the belt, the tensioner and the OAP at the same time.

If one of these two tests fails, the overrunning alternator pulley must be replaced immediately!

Note:

OAD's will have a spring feel in the drive direction and should rotate smoothly in the opposite direction. If not, replace the part immediately. The internal spring is strong and may require a wrench and special tool to properly diagnose the pulley.



› **Test 1:** Use your index finger and your thumb to hold the inner ring (shaft) in place. Rotate the outer ring with your other hand in the same direction as the belt would. If the outer ring moves, you have to replace the OAP.



› **Test 2:** Hold the inner ring (shaft) so it cannot move. Rotate the outer ring in the opposite direction of the belt. You will probably feel a little resistance, but the outer ring should rotate smoothly. If it does not, replace the OAP.

INSTALL A DRIVEALIGN® OVERRUNNING ALTERNATOR PULLEY THE PROFESSIONAL WAY



Specially adapted tools are required to remove and install the overrunning alternator pulley. Gates offers you the GAT4955A tool kit, containing a complete set of OAP installation and removal tools.



DriveAlign® overrunning alternator pulleys should be installed by a professional. Excessive force could damage the internal components, resulting in premature failure.



Overrunning alternator pulleys are OE-fit and function. The OAP diameter, length and internal components are application-specific. Using the wrong type of overrunning alternator pulley will cause severe damage to the accessory belt drive system. It is very important only to use the pulley type that the vehicle was originally equipped with.

DRIVEALIGN® OVERRUNNING ALTERNATOR PULLEY

INSTALL CONFIDENCE WITH GATES

Being a world-leading manufacturer of automotive products, Gates constantly scans the market for new developments in order to be able to provide a solution for every market need. By adding the DriveAlign® overrunning alternator pulley to its range Gates offers the aftermarket all components for a complete overhaul of the accessory belt drive system.

RELY ON GATES FOR AN OVERRUNNING ALTERNATOR PULLEY THAT FITS AND PERFORMS LIKE THE ORIGINAL ONE

- › Wide range covering a multitude of applications
- › OE-quality guarantee
- › Special tools
- › Easy product search on www.gatesautocat.com
- › Efficient logistics: fast dispatch from stock

YOU GET MORE THAN JUST AN OFF-THE-SHELF PRODUCT

- › Technical training
- › Premium support
- › Expert advice
- › Up-to date application information

GATES OFFERS A FULL RANGE OF RELIABLE ACCESSORY BELT DRIVE COMPONENTS



Micro-V® kit



Micro-V® Horizon™ multi-ribbed belt



DriveAlign® overrunning alternator pulley



DriveAlign® tensioner



DriveAlign® torsional vibration damper

The Gates DriveAlign® overrunning alternator pulley increases the performance and durability of all components in the accessory belt drive system.

Gates.com/europe/oap

Your distributor:

E2/70507