



# Fleet and Heavy Duty TECHTIPS



Selecting the best belt tensioner

## How Does A Damping Mechanism Increase Tensioner And Belt Service Life?

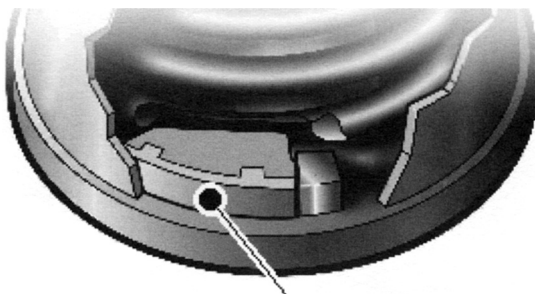
Heavy duty serpentine belt drive systems on diesel engines are subjected to violent pulsations and extreme shock loads.

Typical causes are on/off fan clutch systems that abruptly start and stop, high output generators, accessory loads and engine startup and shutdown.

To reduce tensioner vibration and belt drive stability problems, Gates has developed a robust and patented damping system.

Gates Green Stripe® DriveAlign® automatic belt tensioner is designed to resist extreme vibrations while providing stable damping.

During peak-to-peak vibration tests equivalent to 640,000 kilometers, the tensioner withstood torsional spikes @ 20 cycles/second for three times



*Gates patented damping mechanism*

longer than other aftermarket products.

The tensioner's ability to absorb extreme vibration means that it has high damping levels so that tensioner motion, and fatigue of the inner round spring are reduced.

Here's how it works. The damping mechanism functions like a shock absorber. The torsional spring applies constant pressure to the damping mechanism, which diminishes the oscillation of the tensioner arm.

Reducing the tensioner arm motion provides proper belt alignment and tension for improved drive efficiency and service life of all the drive components, including bearings and pulleys. The damping mechanism also reduces belt vibration – or flutter - that is typical with diesel engines.

The end result is that Gates trouble-free DriveAlign® tensioners reduce accessory drive maintenance.



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