



Fleet and Heavy Duty TECHTIPS



Preserve Your Investment – Check Engine Belts Often

Belt wear is affected by many factors. Dusty or dirty operating conditions, worn or rough pulleys, shock loads, insufficient belt tension, pulley misalignment, belt span vibrations, and especially, a high temperature engine environment can all affect the rate at which a belt will dramatically lose performance.

Gates Corporation engineers recommend that maintenance personnel look for the following V-belt failure modes during regular service intervals.

Glazed or Shiny Sidewalls

The friction created by a loose belt slipping in the pulley causes the belt sidewalls to become slick and shiny. Glazed sidewalls lose their gripping strength and the belt slips even more. Grease and oil on the pulley also can cause this condition.

Cracks

On all belts, deep bottom cracks appearing at regular intervals are caused by the belt turning around a pulley that is too small. This can stress the undercord to the breaking point. Smaller, irregular cracks usually indicate a belt has hardened, possibly from high heat conditions.

Separating Layers

A belt that is falling apart in layers could be a victim of oil. Oils weaken the rubber compound in a belt and reduce the bond between the body, reinforcement cords and top surface. Eventually the belt will slip or separate. Remove the source of oil contamination before installing a new belt.

Jagged or Streaked Sidewalls

Pitted or streaked sidewalls are the result of a foreign object in the pulley (such as sand or gravel) or a rough pulley wall surface. Regular cleaning of drive components helps prevent this problem.

Tensile Break

A large foreign object in the pulley can cut perpendicularly into the belt and break the tensile cords. Tensile damage also can occur when a belt is forced or pried on during installation, but not be noticed until the belt actually breaks. Tensile break can also result from too much belt tension or excessive and continually shock loads to the drive.

If you observe any of these failure modes, replace the belt immediately. Ask for the green belt – Gates Green Stripe® FleetRunner™. The belt's proprietary rubber compounds greatly prolong service life and resist belt failures due to the effects of prolonged high engine heat. Fibers built into the belt make it stable and reduce belt turnover, while also lessening premature failures due to drive misalignment.

In field tests that included stop-and-go and highway running, Gates FleetRunner belts lasted a minimum of twice as long as other belts on the most severe applications.

For additional information go to www.gatesaustralia.com.au/transportation



Glazing



Cracks



Separation



Streaked Sidewalls



Tensile Break