Troubleshooting the Serpentine Drive Belt

Problem	Cause	Solution
"Groove jumping" (belt does not maintain correct position on pulley, or turns over and/or runs off pulleys)	• Excessive belt speed	• Avoid excessive engine acceleration
	• Pulley misalignment	• Align pulley(s)
	• Belt-to-pulley profile mismatched	• Install correct belt
	• Belt cordline is distorted	• Replace belt
Belt broken (Note: identify and correct problem before replacement belt is installed)	• Excessive tension	• Replace belt and adjust tension to specification
	• Tensile members damaged during belt installation	• Replace belt
	• Belt turnover	• Replace belt
	• Severe pulley misalignment	• Align pulley(s)
	• Bracket, pulley, or bearing failure	• Replace defective component and belt
Cord edge failure (tensile member exposed at edges of belt or separated from belt body)	• Excessive tension	• Adjust belt tension
	• Drive pulley misalignment	• Align pulley
	• Belt contacting stationary object	• Correct as necessary
	• Pulley irregularities	• Replace pulley
	• Improper pulley construction	• Replace pulley
	• Insufficient adhesion between tensile member and rubber matrix	• Replace belt and adjust tension to specifications
Sporadic rib cracking (multiple cracks in belt ribs at random intervals)	• Ribbed pulley(s) diameter less than minimum specification	• Replace pulley(s)
	• Backside bend flat pulley(s) diameter less than minimum	• Replace pulley(s)
	• Excessive heat condition causing rubber to harden	• Correct heat condition as necessary
	• Excessive belt thickness	• Replace belt
	• Belt overcured	• Replace belt
	• Excessive tension	• Adjust belt tension