Troubleshooting the Serpentine Drive Belt

Problem	Cause	Solution
Tension sheeting fabric failure (woven fabric on outside circumference of belt has cracked or separated from body of belt)	• Grooved or backside idler pulley diameters are less than minimum recommended	• Replace pulley(s) not conforming to specification
	• Tension sheeting contacting (rubbing) stationary object	• Correct rubbing condition
	• Excessive heat causing woven fabric to age	• Replace belt
	• Tension sheeting splice has fractured	• Replace belt
Noise (objectional squeal, squeak, or rumble is heard or felt while drive belt is in operation)	• Belt slippage	• Adjust belt
	• Bearing noise	• Locate and repair
	• Belt misalignment	• Align belt/pulley(s)
	• Belt-to-pulley mismatch	• Install correct belt
	• Driven component inducing vibration	• Locate defective driven component and repair
	• System resonant frequency inducing vibration	• Vary belt tension within specifications. Replace belt.
Rib chunking (one or more ribs has separated from belt body)	• Foreign objects imbedded in pulley grooves	• Remove foreign objects from pulley grooves
	• Installation damage	• Replace belt
	• Drive loads in excess of design specifications	• Adjust belt tension
	• Insufficient internal belt adhesion	• Replace belt
Rib or belt wear (belt ribs contact bottom of pulley grooves)	• Pulley(s) misaligned	• Align pulley(s)
	• Mismatch of belt and pulley groove widths	• Replace belt
	• Abrasive environment	• Replace belt
	• Rusted pulley(s)	• Clean rust from pulley(s)
	• Sharp or jagged pulley groove tips	• Replace pulley
	• Rubber deteriorated	• Replace belt
Longitudinal belt cracking (cracks between two ribs)	• Belt has mistracked from pulley groove	• Replace belt
	• Pulley groove tip has worn away rubber-to-tensile member	• Replace belt
Belt slips	• Belt slipping because of insufficient tension	• Adjust tension
	• Belt or pulley subjected to substance (belt dressing, oil, ethylene glycol) that has reduced friction	• Replace belt and clean pulleys
	• Driven component bearing failure	• Replace faulty component bearing
	• Belt glazed and hardened from heat and excessive slippage	• Replace belt
"Groove jumping" (belt does not maintain correct position on pulley, or turns over and/or runs off pulleys)	• Insufficient belt tension	• Adjust belt tension
	• Pulley(s) not within design tolerance	• Replace pulley(s)
	• Foreign object(s) in grooves	• Remove foreign objects from grooves