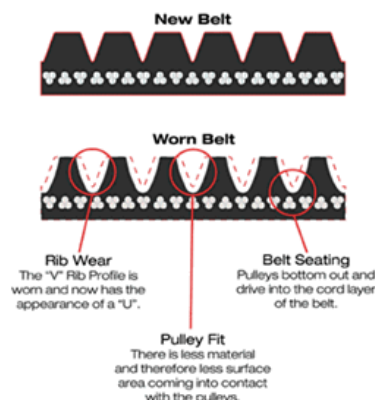




IDENTIFYING WORN BELTS

Today's belts are now made with an EPDM (Ethylene Propylene Diene Monomer) extended-life rubber compound. These EPDM-constructed belts wear completely differently from Neoprene, and can last up to 100,000 miles. EPDM belt wear can be difficult to detect because the belts tend to wear like a tire tread, i.e., there is a material loss from a surface, in this case, the belt ribs. A *new* EPDM belt will have a traditional "V" profile in the grooves between the ribs. With a *worn* EPDM belt however, the groove profile instead has the appearance of a "U", because of the material lost from the rib. Once the rib profile is changed, there is less material (and therefore less surface area) coming into contact with the pulleys. This material loss can cause slippage that will affect the performance of the accessories and possibly result in an annoying noisy belt.



Rib Wear (worn EPDM)

Cause: Long-term operation (i.e. high mileage) on an EPDM belt will cause the loss of rib material. A typical rib profile will wear from a "V" profile to a "U" profile.

Solution: Replace the belt immediately with a new Dayco Poly Rib "W" EPDM belt. Always check the condition of the tensioner, pulleys and drive alignment.



Cracking

Cause: Rib cracking is caused by continuous flexing over a long period of time, but is accelerated by excessive heat (high-temperature environment and/or excessive belt slippage). Dayco recommends that if you have 4 cracks within an inch you should replace your belt. Although a belt can still perform when cracked, if the cracks move into the cord layer, belt failure is likely.

Solution: Replace the belt with a new Dayco Poly Rib "W" EPDM belt. Always check the condition of the tensioner, pulleys and drive alignment.



Misalignment

Cause: Worn pulley/idler bearings, a worn water pump bearing, misaligned power steering pulley or other accessory pulleys, and/or a faulty harmonic balancer can cause misalignment wear. Severe misalignment can also cause a belt to lose one or more outside ribs. Misalignment is apparent when the belt ribs show uneven wear, with possible frayed sidewalls.

Solution: Immediately correct all misalignments prior to installing a new belt. Alignment should be checked with every belt installation today. The #1 cause of belt noise is misalignment.



Chunk Out

Cause: Rib chunk out occurs when small sections of the rib material are broken off due to excessive cracking. A neglected belt with excessive cracking will lead to chunk out. As with cracking, this is caused by continuous flexing and is accelerated by excessive heat.

Solution: Replace the belt with a new Dayco Poly Rib "W" EPDM belt. Always check the condition of the tensioner, pulleys and drive alignment.



Pilling

Cause: Rib pilling is the shiny rubber deposits that get compacted into the belt grooves, and is caused by pulley misalignment, rough or worn-out pulleys, lack of tension, newly coated/painted pulleys, fluid contamination, and/or rough running engines.

Solution: All pulley misalignments need to be corrected. All pulleys will need to be cleaned thoroughly. Any pulley that shows damage to the riding surface (dings, cuts, etc) needs to be replaced. A rough running engine will need to be corrected. Once these items are satisfied, replace the belt with a new Dayco Poly Rib "W" EPDM Belt.



Abrasion

Cause: Improper belt tension can cause excessive slip and abrasion to the belt rib surface. Also, debris thrown into the drive system can cause the belt to appear ruffed up, and can actually cause puncture marks in the belt.

Solution: Ensure that all debris and foreign objects are removed from the drive system; check the tensioner for proper tension and replace the belt. For locked center drive applications, use proper belt tensioning methods (including a 5-minute run-in).