

The truth about transmission fluid additives.

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The Bottom Line - *Transmission additives are harmful and may prematurely cause your transmission to fail or develop severe leakage.*

Aftermarket products like transmission seal conditioner/stop leak can cause you thousands of dollars more in repair costs than you really needed to pay, if you had fixed the true problem first.

The manufacturers of these kinds of additives are often correct in what they advertise the products they sell will accomplish for you, but are extremely misleading in how they do it. For example, if you have an old clunker that keeps dumping fluid from an old dry or worn seal, pumping a bottle of stop leak in may temporarily solve the problem but the long term effects can be disastrous if you use it in a vehicle you plan to keep around for a while.

Here's what happens. The additive is absorbed into the o-rings and seals which then causes them to soften and expand. Good deal right? Expansion means a slighter tolerance between the seal and the components it was intended to seal right? Not always. What works for a short time actually becomes a bigger problem once the additive has had time to sufficiently penetrate the seal material. A high number of transmissions treated in this way will leak FAR MORE than they did before, after the seal has overly softened, in essence turning to jelly and falling apart. Another problem is that the seal swells so much that the moving part it was intended to protect will literally render it useless by ripping the softened seals to shreds due to the reduction of tolerance between the two parts. Imagine lightly placing your finger against a turning fan belt. No big deal right? There is light contact, some transmitted vibration and it really doesn't hurt your finger. Now try grasping the belt tightly in your hand or pressing your finger firmly against it. Different story isn't it? Now you see the difference in the reduction of tolerance between a seal and a moving part.

Even if the seal is retaining fluid between two non-moving parts,(Which is far less common)the additives in stop leaks and conditioners will eventually just eat the

seal up by turning it to jelly until the seal has dissolved to the point where it can no longer withstand the heat and pressure contained in an automatic transmission. In either case what you end up with is a seal that used to work at 80% now works at 20% or less and you have a much more serious leak than you started with.

Another factor is the automatic clutch packs inside the transmission. Many of these additives will attack the friction material that is adhered to the steel discs that make up the clutch packs inside your planetary gear sets. Even using the wrong automatic fluid can ruin a clutch disc so imagine what a penetrating petroleum solvent can do. I've seen transmissions that have been treated with an additive end up completely without forward or reverse gears due to all of the friction material on the clutch packs being weakened to the point where they can no longer withstand the pressure and heat they must endure even during mild driving conditions. Some transmissions I've disassembled have been completely stripped of friction material and ended up clean and polished when they should look more similar to a sanding disc. (To use a commonly known comparison. In reality they don't look like a sanding disc but you get the gist of the comparison.)

In many cases the additive doesn't fix anything at all because the problem wasn't really the fault of a seal to start with. Often the true cause of your transmissions fluid loss is a worn driveshaft end, torque converter neck or worn case bushings in the front or rear of the transmission. In all cases it's much cheaper to have a qualified technician replace a faulty end bushing/seal or other damaged part in the beginning than to end up having the entire transmission overhauled because all your interior seals, o-rings and clutch discs (At least all of them that aren't made of plastic or metal) have turned to goo. What might cost you \$100.00 to \$300.00 now will certainly cost you hundreds, if not thousands more later. For most people their vehicle is the second biggest investment they will make in their lifetimes, don't take chances with it. Fix it right and it will thank you with relatively trouble free operation if you do.