"Stop" The Leaking!

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Though I told myself ahead time that I would try not to cry, I still came prepared for what I knew in my heart would come. Tears. Gobs of them. They simply leaked out of my eyes as I watched my daughter, Briella, walk down the aisle on her high school graduation day.

There is something that feels so final when you look at your only daughter and youngest child in a cap and gown. Even writing about it now, I have a pit in my throat with tears threatening to come.

It's supposed to be a great time of celebration. And yet, there was some heaviness in my soul. My baby girl. Graduated with honors. 4.0 GPA. At the top of her class—#1 out of 181 students with forty-seven college credits. So many years of hard work and dedication … but how did it go by so fast? Oy vey!

Here's the thing—the tears, they were not all sad. They were mixed with heart-bursting proud and joyful tears. And they just kept flowing. One tissue, two tissues, three tissues. I'm sure I looked and sounded like a hot mess—particularly when the parents I had just met behind me leaned forward and said, "you may need a whole box by the time this is over".

I kept telling myself to "just stop it!", but I couldn't. So many tears, for so many years! Then, I looked down and spotted my daughter's best friend. As we made eye contact, she mouthed the word "STOP" very big and very clearly. Ugh, she could see my leaking tears from that far away! I needed to pull myself together and "Stop the leaking!". Thanks to Liv, I got a hold of myself and was able to keep a little mascara on for the pictures afterwards.

'Tis the season of leaking, my friends. Not just in tears as our children or grandchildren graduate, loved ones get married, or littles go off to camp for the first time. But leaking in our vehicles—specifically, this time of year, in the air conditioning system.

Generally speaking, any leak from our vehicle is less than great news. However, just like it was normal for my eyes to be leaking tears at my daughter's graduation ceremony, it is normal for our vehicles to leak water when our AC system is doing its job.

The AC system cools the cabin by pulling humidity from the air and the evaporator core condenses the humidity (turns it into a liquid). This process produces condensation on the outside of the AC system and "leaks" out of the evaporator drain. This is why, oftentimes you see a puddle of water under your vehicle during the hot summer months. And it is the only time, when dealing with leaks from our vehicles, that we don't need to be concerned at all—as long as it's only water leaking.

Now that we've gotten the good leaking news out of the way, let's talk about other AC leaks and the best way to fix them. As with any complicated topic, it's always good to start with the basics.

The AC system is very complex and consists of several major components, including the condenser, evaporator, and compressor, along with many other smaller parts and liquids.

Refrigerant is perhaps the most important component of the AC system. This colorless liquid moves throughout the system, changing from liquid to gas to cool the cabin of our vehicles. It can leak at any point in the cycle, especially when parts become loose, worn, or damaged. And since refrigerant is a gas at certain stages, a tiny crack or unnoticeable hole anywhere within the system can allow it to escape.

Refrigerant also contains a special oil that lubricates and cools the parts within the system. The oil is crucial to reduce friction, prevent wear, and prolong the life of the system.

The AC process is designed to work its best within a closed system. It requires a precise amount of refrigerant to effectively and efficiently perform well. Since refrigerant is not "consumed" in any way during the cooling process, if the system if low on refrigerant it's because there is a leak.

When refrigerant leaks out, you may still have cool air, but the parts do not have enough oil to protect them. This can cause them to wear out prematurely. Additionally, refrigerant tends to gather moisture and become corrosive—which can also cause additional leaks.

Oftentimes with leaks, they happen so slowly and are so small, we don't even know there's a problem. Then one day, our vehicles stop blowing cool air or they make a funny sound when the AC is running. When we assess the system with the naked eye, everything may look just fine. However, since it's not doing what it's supposed to, we know there is a problem.

But how many problems are there? Is there one small leak to fix? Or are there multiple leaks? Have the leaks caused parts of the system to wear over time—so now there are components that need to be replaced along with fixing the leak(s)? Where does one start? What might google tell us? Are there any easy fixes?

If you google "car AC leak", the first thing that comes up is what promises to be a magical solution that will stop the leaks in your AC system. And it's aptly named, "Stop Leak".

"Stop Leak" claims to be an amazing product! You simply put it in your AC system and it magically seals any small leak present. It's relatively cheap to purchase, may save you a lot of money that you might otherwise spend with a mechanic, and it can even prevent future leaks. Wow! It almost sounds too good to be true!

Typically, when anything sounds too good to be true, it usually is. Here's the real truth: we cannot abracadabra a leak away—no matter what the label on a can promises. What the words don't tell you is the damage it can cause and the additional cost in the long run that you might incur.

Using "Stop Leak" is like pouring a bottle of glue into the system. It can clog valves and many other parts. It can disturb the flow and pressure within the system, reducing its efficiency. Larger leaks will not be sealed. And it is not proven to properly seal around O-ring and shaft seals—which are where the most common leaks are.

"Stop Leak" is a temporary solution, at best. At worst, when it doesn't do as you hope, you'll incur additional costs because your system will need to be completely flushed before a mechanic can properly assess and repair it. And at the end of the day, that cheap bottle of "fix all" has the potential to cause so many problems that you may end up "fixing all" of your AC system.

So, if "Stop Leak" isn't the answer, what is?

Unless you have the equipment to properly diagnose and repair the AC system of your vehicle, your best bet is to leave it to the professionals.

The first order of business is to let the mechanic know if any AC work has been done and if "Stop Leak" has been added. This is key not only in aiding them in planning on how to proceed but to save their expensive AC machine when evacuating the refrigerant out of your vehicle. When they know "Stop Leak" has been used, they can install special filters on their machine to protect it. Then they can diagnose any leaks or component issues of your AC system and fix it properly.

In some cases, the mechanic will use UV leak detection by adding dye to your AC system and cycling it through. As it circulates, the dye will escape through leaky sites, and it can then be detected using a special light.

In other cases, the mechanic will use an electronic "sniffer" tool that is designed to pick up traces of refrigerant.

When the "sniffer" detects high concentrations of refrigerant, it beeps, alerting the mechanic where the leak may be.

When leaks are found, the proper actions can be taken. First, the refrigerant must be evacuated from the system. Damaged components will be replaced—whether it's a cracked hose, faulty seal, or other components within the system. Then the refrigerant must be replaced and recharged.

Because your AC system is delicate, a precise amount of refrigerant needs to be added. Shops invest in expensive equipment that will add the exact amount needed for your vehicle. If there is not enough or too much, it will not work properly. Furthermore, if there is too much, it can cause extra work for the system and decrease gas mileage because it's working harder than it should be. I don't know about you, but I definitely don't want to be buying any extra gas these days!

It seems with many things in life, there is good, bad, and ugly. This is true for the things we talked about today.

The Good

The Lord has given me eighteen amazing years with my incredible daughter. I got to relive those years a little as I looked through the thousands of photos in preparing for her graduation party. What I saw is a beautiful soul—fearfully and wonderfully made. One who has embraced her gifts, used them to shine for Jesus, and turned into a lovely young woman—inside and out. I get the honor, privilege, and blessing of being her mom. I will thank God all the days of my life.

The good about AC—do I even need to tell you? What a great invention! There is the joy of the cool breeze on your hot face after being in the sweltering heat. The relief of your clothes not sticking to you as you show up for work. The list goes on and on. I might not thank God all the days of my life, but I will thank Him on the hot ones!

The Bad

The years went by way too fast. My best girl is leaving for college in a couple of months. And I didn't get enough time with her.

The bad about AC—it sucks when it doesn't work. It costs money to fix. And it can be expensive.

The Ugly

The ugly cry that was happening at Briella's graduation—the hot mess that I was until Liv told me to "STOP" the leak.

The ugly about AC—"Stop Leak". It's glue. If you use it, it could get very ugly.

But there is more good—it's the good in our perspective. We can focus on the bad and the ugly. Or we can embrace all the good with a grateful heart.

Before now, you may not have known "the ugly" about "Stop Leak". Take heart for you are not the only one—that can of glue has deceived many!

The good news is, if you've used it—it's going to be okay! You can let your mechanic know and get it fixed right. If you haven't used it, you can be grateful and seek out the professionals to keep cool—saving you money in the long run!

And the good perspective about my favorite daughter … she's not going very far. In the fall, Briella will be attending and playing soccer at the University of Northwestern in St. Paul. Their mascot … an eagle.

By the grace and guidance of God, I have fulfilled my duty as Briella's mom in the eighteen years she lived under my roof. I know for certain that the day I take her to college, I will need that whole box of tissue. But I also know that it is time to let her fly.

But those who hope in the LORD will find new strength. They will soar high on wings like eagles. They will run and not grow weary. They will walk and not faint. Isaiah 40:31

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