

The summer holiday season is arriving and many people are going on holidays by car. This usually means the vehicle is being used different than in everyday life: overpacked, hauling, more kilometers etc. All these additional conditions cause extra strain on the car's engine, driveline AND suspension.



Vehicle owners want to enjoy a pleasant, trouble-free journey and a relaxing holiday at the destination without having to worry about being stranded or worse, unnecessarily risk accidents. Therefore, many workshops offer an attractive “Holiday check” involving checking the car's brake system, fluids, tires, wiper blades, battery condition...but how about the air suspension system?

Checking the suspension is indeed an important factor. Most people travelling to their holiday destination carry higher/bigger load in their vehicles than usual and drive larger distances. All of which challenges the suspension system's road handling and ride comfort. Thus, the system should function flawless. The advantage of a vehicle equipped with air suspension is that the system conveniently levels the car under all circumstances, including heavy loads and towing. Let's take a closer look to find out how this works:

Air suspension systems use a compressor to inflate rubber air springs - which may be separate from the shock absorber or combined with the damper as an air suspension strut. Height sensors give the ECU (Electronic Control Unit) a signal when the vehicle is not at a predetermined height. The compressor then pumps air into the air springs until the proper height is reached. The system does this after loading while still stationary, but also continuously while driving, cornering, during road inputs, etc.

Like all rubber components, air springs and struts are wear and tear parts. Typically, the rubber will dry rot and small cracks can form where the air bladder rolls upon itself. On average, an air suspension part will need to be replaced in six to ten years. Mileage, climate, driving conditions and off-road usage will also influence the replacement rate.

Quick diagnosis of a leaking air spring is easy. If the car is parked overnight and the next morning one corner is sitting lower than normal, the system has a leak. Despite this, a small existing leak may go unnoticed by the driver. At the beginning, the compressor is still able to maintain adequate pressure, despite the leak. But as the leak gets bigger the compressor will get overheated (or burn-out) in its attempt to reach the required pressure and ride height. The extra load of the holiday luggage and/or winding roads in the mountains will create even more stress, making it absolutely crucial to have the system checked before starting the journey!

So in practice when you perform a “Holiday check”, spray the system with a water and soap solution to detect leaks before your customer gets stranded.

This information is provided to you by Arnott – Air Suspension Products. With more than 30 years of experience in engineering, designing and manufacturing high quality air suspension components for the aftermarket, Arnott is the technical expert when it comes to air suspension systems. Arnott’s products are produced with high-quality, OE components offering exact form, fit and function. Each product is extensively tested in our American and European facilities and custom-tuned to suit the specific vehicle make and model before being produced.