

Safety Bulletin

Parks and Regions group

2018

Welcome to another edition of a Safety Bulletin for the Parks & Regions Group for 2018. This particular bulletin is produced by the staff from SA Arid Lands Region and their WHS Committee on behalf of the Group's Workplace Health and Safety Committee. Throughout the year a different Parks and Regions branch or region will provide a safety bulletin to keep staff updated on new workplace safety initiatives, a particular theme, and other information in regards to workplace safety.

*"Safety within the Group is vital and improving safety to all Group staff is of highest priority.
Look after your workmates!"*

Theme – SAFE DRIVING – THE IMPORTANCE OF MAINTAINING CORRECT TYRE PRESSURE

"Happy Safe Travels"

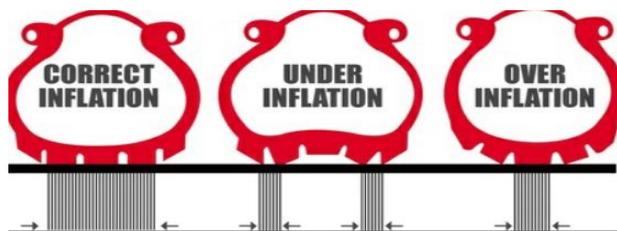
Maintaining Correct Tyre Pressure

Ensuring you keep the recommended level of air pressure in your tyres will extend their life and give you optimal handling, braking and fuel economy. That's why checking your pressures on a regular basis is a good habit to get into.

Tyres that are not at the correct air pressure will increase the rolling resistance (the friction that occurs when an object rolls) of the vehicle. Under-inflated tyres, for example, result in increased rolling resistance and therefore require more energy (or fuel) to move the vehicle, which negatively impacts fuel economy. Keeping tyres inflated properly improves fuel economy by approximately 3.3 percent. Tyres that are over-inflated result in reduced levels of handling performance because less rubber is in contact with the road.

Improper inflation puts unnecessary stress on your tyres and can result in excessive or uneven wear. When this happens, it compromises the ability of the tyres to perform, and often results in premature tyre wear, and the necessity to replace them sooner than expected. Tyres with excessive or uneven tread wear can also lead to an accident.

Under-inflation will also cause the vehicle's handling and grip levels to decrease, potentially causing irregular or unpredictable car behaviour in the event of a sudden evasive or emergency manoeuvre. Tyre life decreases roughly 10 percent for every 10 percent it is under-inflated, and the tyre itself will also begin to wear more rapidly on the shoulders, meaning you'll be up for a new set of tyres a lot sooner.



How to check air pressure

Properly checking tyre pressure requires an accurate air gauge. Many people falsely believe that they can check air pressure just by looking at the tyre and judging the sidewall appearance. Also, many people use the air gauges at service stations, which can be grossly inaccurate due to exposure or abuse. Invest in a quality air gauge. Consult your owner's manual or the label inside the driver's door jamb to find out what the recommended air pressure is for your vehicle. When checking your vehicle's tyre pressure, make sure the tyres are "cold". Cold air pressure means that the vehicle has not yet been driven one kilometre (remember that driving on a tyre as well as being in direct sunlight increases its temperature and air pressure).



To check the air pressure, unscrew the cap from the tyre's valve stem and place the round end of the gauge over the stem. Push down with some force to ensure there is a good seal, otherwise the reading will be incorrect (and you may also lose air pressure). To determine what the tyre pressure is, read the numbers and lines on the bottom of the gauge. If you're not sure the reading is accurate, repeat the procedure one or two more times. Always ensure you inspect both the gauge inlet and tyre valve for excessive dust or foreign objects prior to taking a reading.

Check all four tyres and add or remove air as needed to equalize the tyre pressure. To add air, use an air compressor. To remove air, simply use the non-rounded end of your gauge, and push it in to the valve stem. As the valve is being depressed, the escaping air will make a hissing sound. Use the gauge to check the pressure several times until the proper psi reading is reached. Finally, after completing the pressure check, make sure the valves and extensions are equipped with valve caps to keep out dirt and moisture. Remember to replace the valve assembly when you replace the tyre. This protects against a sudden or consistent loss of air pressure.

Another option is to consider the use of tyre pressure monitoring systems. These systems allow you to check your air pressure at a glance and display a constant visual of the air pressure in each tyre while driving. Good systems are available for under \$400, however before running out to purchase a kit remember the DEWNR Leased Motor Vehicle Procedure provides that a Branch or region must complete and have approved a Fitment of Non Standard Features Indemnity form.

Selecting the correct air pressure

While consulting your owner's manual or the label inside the driver's door jamb will tell you what air pressure your tyres should be while on the bitumen, many of us operate vehicles in our work day in situations and conditions that might require off road air pressures. Selecting and getting used to setting the right tyre pressure takes a little bit of practice, and there are many individuals within the department experienced in tyre pressure adjustment that would be happy to help.

When driving in soft sand it is advisable to start with your tyre pressure at around 16psi. If you find you still are not getting traction and your wheels are spinning, reduce your tyre pressure in small increments. With lower pressure comes increased chance of breaking the bead on your tyre and having it come off the rim. Because of this it is important to reduce driving and turning speeds.

Dirt roads are variable in their condition and are tricky at the best of times. Low air pressure is crucial to sustained traction on corrugated tracks. If you're going to be travelling long distances on dirt roads a rating of around 25psi is advisable. Again, reduce your speeds when operating below highway pressures.

These suggested pressures are a guide only, reducing tyre pressures should always be done under the guidance of colleagues with knowledge and experience in this practice.

Check air pressure routinely

Perhaps because our tyres do so much without seeming to need any attention, we tend to overlook this important task. But tyres do lose pressure, slowly but surely every day, through the process of permeation. Generally, a tyre will lose up to one or two kilopascals of air per month in cool weather and even more in warmer weather. Also, tyres are subjected to flexing and impacts that can diminish air pressure.

But perhaps the most overlooked factor is vehicle loading for trucks and 4WDs. Since these vehicles can be configured and loaded in many ways, the proper inflation pressure should be determined by actual tyre loads. This is best determined by weighing the vehicle; vehicle loading can change from trip to trip.

Perform a simple tyre inspection

In addition to checking your air pressure, also look for signs of tyre wear, such as cracks in the sidewall, or foreign objects embedded in the tyre, such as nails or screws. Check the tread depth in several places on each tyre to spot uneven tread wear, and inspect the valve for signs of damage. In the picture adjacent a staff member had a quick glance and feel of the tread it appeared fine but once he got down on his knees and really looked at the tyre he noticed the inside the tyre was completely worn and chunks of tread were missing. Without a thorough inspection this would not have been picked up.



Signs of tyre problems

There are a couple of signs that your vehicle's tyres may be improperly inflated. When driving down a straight, level road, check to see if the car pulls to one side or the other. While this "pulling" may be caused by improper alignment, it may also indicate a tyre issue, especially if you are certain that the alignment is correct or if the vehicle recently had an alignment service. If the centre section of the tread is smooth, your tyres may be over-inflated. Likewise, if the outside sections or edges of the tyre tread are worn or rounded, your tyres may be under-inflated. Also, listen for any squealing sounds when turning a corner at normal speeds. While these things can be symptoms of other problems, they are frequently signs of improperly inflated tyres.

Tyre pressure maintenance helps the environment

How can routine air pressure maintenance impact our environment? Consider that fewer tyres per year would end up in the landfills and scrap heaps. How many tyres? It is estimated that most drivers lose from 10% to as much as 50% of tyre tread life due to under or over-inflation.

Consider too the extra fuel we burn to push cars along on soft, underinflated tyres. Tyres do require extra energy to roll if they are under inflated. While the statistics vary widely and inconclusively, the implications are staggering. So maintaining tyre pressure is a small line item in our busy daily routines, but it adds up to big environmental consequences. We must all care and take action to do the right thing.

And finally

Checking your tyres monthly will also give you added peace of mind that you're being responsible and looking after the wellbeing of yourself and your colleagues, and that your tyres will be performing at their best when you need them most.

Also remember that while the above is aimed at vehicles, any plant equipment, including quadbikes, trailers and other vehicles that use pneumatic tyres and should be checked regularly, indeed correct tyre pressures are often critical to the safe operation of these vehicles.

REMEMBER - YOUR SAFETY IS PARAMOUNT!

