

# Reducing Emissions: Maintenance and Tyres



**A vehicle's fuel efficiency and emissions performance will deteriorate over time, unless it is properly maintained.**

Regular servicing and appropriate vehicle maintenance can improve engine efficiency and reduce your vehicle's fuel use and emissions.

Tyres also significantly affect vehicle fuel economy, as well as handling and safety.

## **Scheduled servicing**

Frequency of inspections and major servicing will depend on the age and condition of your vehicle as well as the type and amount of driving you do.

Modern vehicles don't need to have a "tune up" in the same way older vehicles with carburettors did. Inspections usually involve the vehicle being connected to diagnostic equipment to identify any faults.

Consult your owner's manual for the manufacturer's recommended schedule of inspections, replacement and all other maintenance. Some owner's manuals can be read online.

Between professional inspections check the levels of engine oil, radiator coolant, and automatic transmission and power steering fluids. Check air filters and replace them when dirty. Modern vehicle batteries are usually maintenance free but fluid levels of older style batteries still need to be checked.

Looking after your engine with scheduled servicing will maximise its fuel efficiency.

## **General Maintenance for Efficiency**

- Keep to the recommended servicing schedule.
- Change the oil filter and oil periodically. Use the correct grade of engine oil and choose low friction lubricants.
- Clean air filters and keep coolant at recommended levels.



### **Further information:**

Email: [DPTI.LowEmissionVehicles@sa.gov.au](mailto:DPTI.LowEmissionVehicles@sa.gov.au)

Web: [www.lowemissionvehicles.sa.gov.au](http://www.lowemissionvehicles.sa.gov.au)



**Government of South Australia**

Department of Planning,  
Transport and Infrastructure

## Tyre Rolling Resistance

About 5% – 15% of the fuel consumed by a typical car may be used to overcome tyre rolling resistance. For heavy vehicles this portion can be as high as 15% – 30%.

Rolling resistance depends on the tyre design and its level of inflation. There are an increasing number of low rolling resistance tyres available on the market, which can save considerable fuel. See our Tyre Comparison tool for more information. 

## Tyre Inflation

- Underinflated tyres lead to increased rolling resistance.
- Tyre pressure is usually measured in kilopascals (kPa). The imperial units, pounds per square inch (psi), are less used today.
- Tyres typically lose up to 2 kPa of pressure per month – even more in cooler weather.
- Under-inflation may cause wear on the outside of tyres, heavy steering, poor vehicle control and the tyres are more likely to split.
- Over-inflation may cause excessive wear in the middle of tyres.
- Carrying heavy weights increases flexing of the tyres. Reinflate tyres for heavy loads.

## Tyre maintenance

- Check your tyre pressure at least once a month, and before a long drive.
- Learn your vehicle's recommended tyre pressure. This may vary from vehicle to vehicle. The information is

generally found in the driver's manual, with stickers on the vehicle.

- Check for proper inflation when the tyre is cool (i.e. after the vehicle has been stationary for a few hours, or has driven only a kilometre or two).
- Remember to check the spare tyre.
- Radial tyres can be under-inflated yet still look normal.
- Consider using tyre pressure indicators.
- Every 15,000 km, ensure wheels are aligned to reduce rolling resistance.
- When it is time to replace your tyres, select low rolling resistance tyres for further fuel savings.



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## See Also:

- [Toolbox: Tyre Comparison](#)
- [Reducing Emissions](#)
- [Reducing Emissions: Vehicle Emission Types](#)
- [Reducing Emissions: Why Reduce Emissions?](#)
- [Reducing Emissions: Vehicle Selection](#)
- [Reducing Emissions: Vehicle Use and Operation](#)
- [Reducing Emissions: Refuelling / Recharging](#)
- [Reducing Emissions: Aerodynamics and Loading](#)
- [Reducing Emissions: Low Emissions at Low Cost](#)
- [Reducing Emissions: Offsetting Emissions](#)

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