

# Fleet Practices

**Getting 'fleet fit' isn't just about what new technology or trucks you buy, it's also about how you operate them.**

Fine tuning your operating practice offers some of the cheapest ways to cut fuel and emissions at the same time. Most businesses of all kinds (not just fleets) can do better in one or two areas they've been avoiding or are too busy to focus on.

Here's a list of half a dozen fleet practices to **help produce fuel savings for very little cost**. It's important to remember the suitability of an opportunity (and therefore the costs and savings) **depends on how you use your truck and the work it does**. This list is broadly applicable to all fleets. Some will be familiar to most truckies and can deliver big savings over the long term.

Correct tyre pressure could save **4%** on fuel

**1. Preventive maintenance and inspections:** A well-maintained truck will always burn less fuel. Staying on top of fleet maintenance with regular servicing makes good business sense in general, and it also keeps your fuel bill down. Ensuring engine oil is replaced when due, air filters are clean, there are no oil or coolant leaks, hoses are fastened and not brittle, brakes don't drag, compressors operate, and clutch fans aren't faulty – these are just a few of the things you can do to optimise fuel efficiency.

If your trucks are serviced by others, it can still pay to check key systems. At a minimum, drivers should conduct pre-drive checks every day to identify any safety risks, which can also double up as efficiency checks.

It's easy to ignore minor faults and react to major maintenance so make sure preventative maintenance is embedded into your business:

- Do you have a clear maintenance schedule of services? Are you following it? Why/not?
- What happens between services? Do routine inspections cover fluid checks, tyre rotation, replacing air filters, oil changes?
- Is there somewhere to log minor faults for repair before they become major failures?
- Who is responsible for monitoring maintenance? Are your drivers properly skilled up?
- How much are ad-hoc repairs currently costing you?

**2. Wheel alignment & tyre care:** Tyres are the only part of your truck in contact with the road so are critical to both efficiency and safety. The Get Fleet Fit [Efficiency Upgrades fact sheet](#) talks about the most fuel-efficient tyres. Regardless of what tyres you use, keeping them in optimum condition is largely about maintenance and inspection. It includes everything from wheel/axle alignment and balancing, tread wear inspection and measurement, maintaining tyre pressures, and repair/replacement if damaged or punctured.

Of all the maintenance issues to monitor, many fleets don't appreciate how important wheel alignment is. Even small misalignments can damage tyres or make your trucks "pull" to one side. In turn, this increases fuel consumption in several ways:



Misaligned wheels can cause uneven tyre wear increasing rolling resistance and causing premature tyre replacement. This increases tyre costs and the engine burns more fuel to move the truck forward.



If wheels are not correctly aligned, drivers need to compensate through constant steering corrections. This increases aerodynamic drag and, raises fuel consumption, particularly for freeway driving.



In general, correct wheel alignment improves vehicle stability and handling. With smoother and more controlled driving, fuel efficiency also improves.



Access all the resources here

Regular wheel alignment checks across a truck fleet can reduce fuel consumption by 3-5%. Building these checks into your regular preventive maintenance schedule can cut down on emissions and operating costs.

Besides keeping your tyres tracking true and straight, keeping them **inflated to the right pressure is just as important**. Under-inflated tyres increase fuel consumption, emissions, tyre wear, and the risk of damage. Drivers should already be checking tyres for deflation on every pre-drive safety check. Ensuring pressures are set right can be done less frequently (at least weekly to ensure you catch problems early).



Pressure checks can be combined with regular visual inspection to identify wear problems due to poor alignment. This doesn't require expensive equipment – just a pressure gauge and the commitment to do it. Moving beyond human-based systems to a tyre pressure monitoring system (TPMS) or automatic inflation system is covered in the Get Fleet Fit [Efficiency Upgrades fact sheet](#).

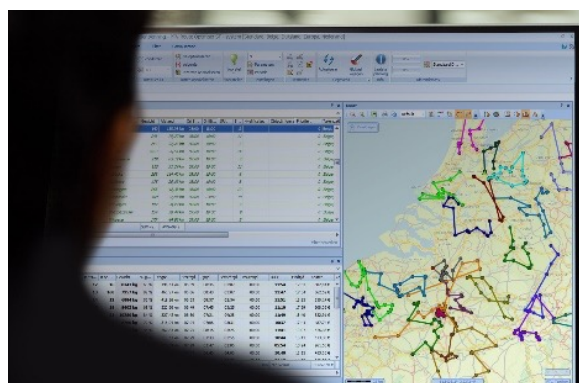
**3. Eco-driving:** Your drivers are your greatest asset in improving fuel efficiency. How they operate your trucks can have a big impact on your fuel bill and your emissions profile. 'Eco-driving' means building more fuel-efficient driving styles into your operations. It's such an important opportunity that we've prepared an [Eco-driving fact sheet](#) on this.

**4. Anti-Idling:** Running the engine for no reason may be one of the most obvious wastes of fuel but can be hard to change. Some trucks spend **more than a quarter of their engine running time at idle**. While engine idling is a necessary part of some operations (e.g. for PTO, refrigeration units, or just moving the truck around the yard), odds are your fleet already burns fuel for no good reason several times a day. Many newer trucks have stop-start engine technology built-in or include separate HVAC systems as standard to help reduce idle time.

An idling truck can emit **1.2 kg** of CO<sub>2</sub> every 10 minutes

It's common to see, hear, and smell truck engines idling when they could be turned off. These senses point to impacts other than carbon emissions. We're all familiar with how noisy a large diesel engine can be, so switching off can make the workshop or yard a quieter workplace. More importantly, **diesel engine exhaust is classified as a cause of cancer** by the World Health Organisation, so switching the engine off when you don't need it also makes the workplace healthier for you, your staff, and the wider community.

Changing idling behaviour is difficult. Drivers often just leave the engine running for convenience while stepping out for a minute, to keep the cab temperature comfortable, or because they think it's better for the engine than stopping and restarting. You can use training, company policies, and incentives to change behaviours. If these don't work, after-market anti-idling systems may be worth investigating (See the Get Fleet Fit [Efficiency Upgrades fact sheet](#)).



### 5. Route and schedule optimisation:

This opportunity is about the best way to deploy trucks to meet customer requirements considering things like distance, time, driver, traffic, loads, and other conditions. Bigger companies often use a scheduler or planner to do this, plus there are software and apps to make this job easier. Key objectives are to maximise loading, reduce driving time/distance, and reduce empty running.

The [BC Sands case study](#) offers an example of doing this in practice.



Access all the resources here

If you are optimising your own route and schedules, consider questions like:

- For multiple drops, can the delivery schedule or route be improved to reduce time or distance?
- Is there a better time to deliver that avoids traffic congestion while still meeting customer needs?
- Does the truck need to go out partially loaded or could departure be held to fill it up?
- Could loads be mixed/matched between trucks?



Some customers might accept night deliveries if there aren't curfews in place. Using an electric truck might even provide an exemption from the curfew due to lower noise emissions – check with the customer and local council. Such a big change will affect your drivers and other staff (and possibly their pay rates), so make sure to consider those factors as well as the benefits.

**6. Reducing maximum speed:** Larger fleets (particularly those doing lots of freeway driving) are increasingly limiting the top speed of their trucks to 95 km/h or even 90 km/h, as a zero-cost option to cut down on fuel. The faster a truck drives, the more fuel it burns to overcome increasing aerodynamic drag and rolling resistance. Every kilometre over 90 km/h increases fuel consumption by about 0.04 km/L.

Beyond the effects of aero and tyres, the engine and transmission also affect fuel consumption at higher speeds. All combustion engines are designed to **operate most efficiently within a specific speed range**, so the wrong gearing or final drive ratio can push the engine towards the top end of this optimal zone at higher speeds. Staying in the ideal rev range ensures your fleet operates closer to its peak efficiency, where fuel consumption – and emissions – are lowest.

A common reaction to the idea of 'slowing down' is to ridicule or resist it. A combination of benefits including environmental, safety, stress, and cost benefits have convinced many operators it is worth investigating. Independent studies have found fuel savings alone can be up to 15% depending on the speed limit. Limiting your trucks' top speed could end up saving you more than just fuel or emissions. See the examples in the links below.

### Find out more

Trucksales recaps some of [the best fuel economy measures](#).

Reducing top speed is becoming more common, and some of the pioneers in this area are [Simon National Carriers](#) (as far back as the 1980s) and [Ryans Freighters](#).

[This 2014 study](#) found a Victorian trial of reducing top speed to 90km/h could result in a fuel saving of up to 15%.

To dive further into the **research on idling**, [check out one of the only Australian studies](#).

**Get Fleet Fit** has been designed by NatRoad to guide truck operators towards improved fuel efficiency and reduced emissions in alignment with future government regulations and customer expectations. We've developed a 5-step roadmap to help create a clear, actionable plan for your business, plus more detailed information on important topics to help you along your unique journey.

