



An Adnoc petrol station in Abu Dhabi. There are many methods to help make your car more fuel-efficient, from driving at a steadier pace to making sure your tyres are correctly inflated. Christopher Pike / The National

Fuel for thought: how to improve your car's efficiency

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Ideally, we should all be travelling at a little less than 100kph (when our engines are at optimum load) without overtaking anyone. Research by Britain's Automobile Association has shown that driving at 110kph uses up to 9 per cent more fuel than at 95kph, and up to 15 per cent more than at 80kph. Cruising at 130kph can use up to 25 per cent more fuel than at 110kph – it's definitely food for thought.

What about our tyre pressures? Do you ever check them, unless you're preparing to go dune bashing? The chances are you don't, but you should for a number of reasons. First and foremost, your safety and that of other road users depend on your tyres being correctly inflated (if you're unsure of your recommended pressures, there's usually an information sticker on the inside of your door aperture), but underinflated tyres increase what's known as "rolling resistance". In other words, the greater the tyres' contact patch with the road surface, the more effort it takes for a car to move.

The popular television programme Mythbusters tried this out. Using a bog-standard Ford Taurus, the researchers discovered that running a car that should have its tyres at 35psi pressure with its tyres underinflated by 25psi resulted in a 3.7 per cent increase in fuel consumption. Even 5psi less than their recommended pressures made a difference, coming in at a 1.1 per cent increase, while overinflating them

actually decreased consumption to an even greater extent. That's not recommended, though, especially in our scorching temperatures, but the point has been proven: underinflated tyres cost us money.

In other countries, drivers have taken drastic measures to save money, including switching to compressed natural gas (CNG) as a fuel for their cars. It's also something that Adnoc has been promoting for some time, with many taxis and other government vehicles running on the stuff, and fleet operators especially can quickly see tangible benefits.

For the likes of you and me, though, this might be a non-starter, and any change to our vehicles' fuelling systems will be costly in the first instance. As with trading in for a more economical car, the savings might take years to make it worthwhile. Costs for the conversion – carried out by Emirates Transport – start at about Dh7,400 for a four-cylinder engine, rising to more than Dh10,000 for an eight-cylinder. The process takes between four and five hours. Fuel costs for those using CNG are approximately half that of petrol, but you'd need to cover some serious distance to make it worthwhile, especially considering the scarcity of supply stations.

Something I became aware of only recently, however, can be utilised in this very region and has far-reaching cost benefits. How about taking your engine back to its prime, and having it work to optimum efficiency as though it were new? I'm not talking about a mechanical rebuild, rather about a process known as TerraClean, which is available at Parc Fermé in Dubai.

TerraClean is a technology developed by a group of scientists in Canada who were commissioned by their country's government to develop a zero-emissions engine. According to the company, they did manage to achieve this goal, but the technology involved and the fuel used to achieve this would necessitate an increase to the price of the vehicles, because of the need to retrofit a "reactor" that would molecularly alter the state of the fuel. These enormous costs rendered the concept unviable for introduction into normal road cars.

Engineering projects such as this demand close attention to the condition of the test vehicles being used, and the inspections carried out during the scientists' research clearly demonstrated that the process wasn't only preventing carbon build-up (associated with all internal combustion engines) but was removing pre-existing carbon build-up in the engines as well as other deposits that usually build up through use of lower-quality fuels.

So while the project inevitably stalled, something good did come from it. TerraClean is a technology that actively cleans your engine's internal parts, removing carbon deposits that will have been building up from the day your car was new. Without those harmful carbon deposits clogging up your engine, it's able to provide optimum performance. This, in turn, means better fuel economy, which ultimately means fewer visits to the petrol pump, lower exhaust emissions and a cleaner conscience.

The premise is very simple: burning fossil fuels produces carbon, and anything that removes it will be beneficial, as though cleaning out your engine's arteries.

When it comes to saving fuel, there's no one thing that any of us can do to achieve that goal. There are a great many different approaches, and maybe one or two of them ring true with you and your own experiences. I do find it heartening, though, that at last we are talking as a nation about how we can consume less, and that, eventually, will improve things for all of us. Less fuel used, less money spent, less pollution in the air we all breathe – I'm all for it.

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