

# FUEL

{ WORDS GLENN TORRENS // PHOTOGRAPHY BRENDAN THORNE }

## Duel

Talk is cheap and so it's finally time for Petrol and Diesel to put up or shut up. Which one will be champ?

**I**n our Summer 2008 issue we looked at the relative merits of LPG and petrol as a fuel for towing with a conventional sedan (Holden's VE Commodore Omega with factory LPG). At the time, we discovered LPG would cost \$120 per thousand kays compared to petrol's \$210, a saving of around 40 percent.

However, with higher tow ratings (up to 3500kg) and the bonus of off-road fun, many Aussies choose a big four-wheel drive as a tow vehicle. Unfortunately, none are available with factory-approved LPG (although some are LPG compatible and have aftermarket packages available) With the exception of some diesel-only dual cabs such as Mazda BT50, its twin the Ford Ranger and the Nissan Navara D22, all are available with a choice of petrol or diesel power.

So what would you choose?

There are price and performance aspects to consider. To help provide the answer, AC+RV tow tested using diesel and petrol in identical conditions. We've looked at the costs of the vehicles and the fuel, and the depreciation you can expect over the first three years of ownership. It's all to help provide you with the difference in the total cost of ownership

between petrol and diesel. And the results were surprising, to say the least.

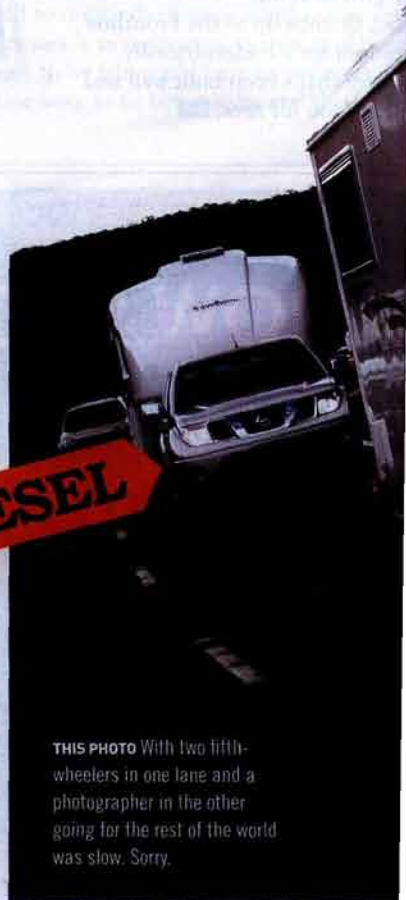
### FUEL AIN'T FUEL

Compared to petrol, diesel is a thicker, more oily fuel and although it's cheaper to produce, a gaggle of taxes and excises (related to the fact diesel has long been the fuel for heavy transport, not small vehicles) means it's usually more expensive to buy. And with lower retail sales volumes, diesel is usually not discounted as often - or as much - as petrol.

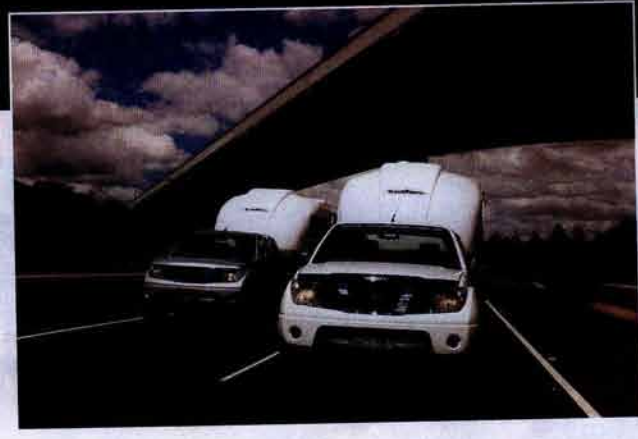
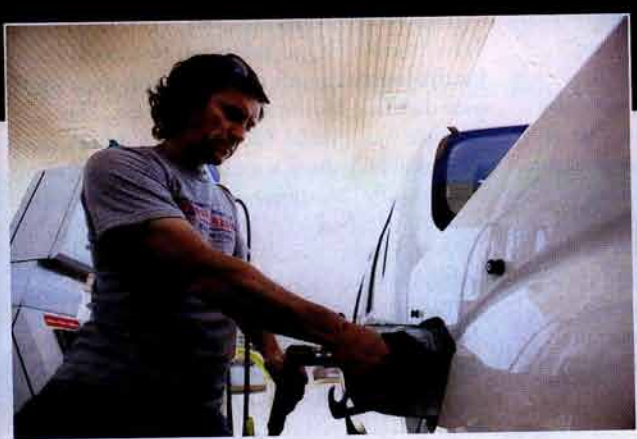
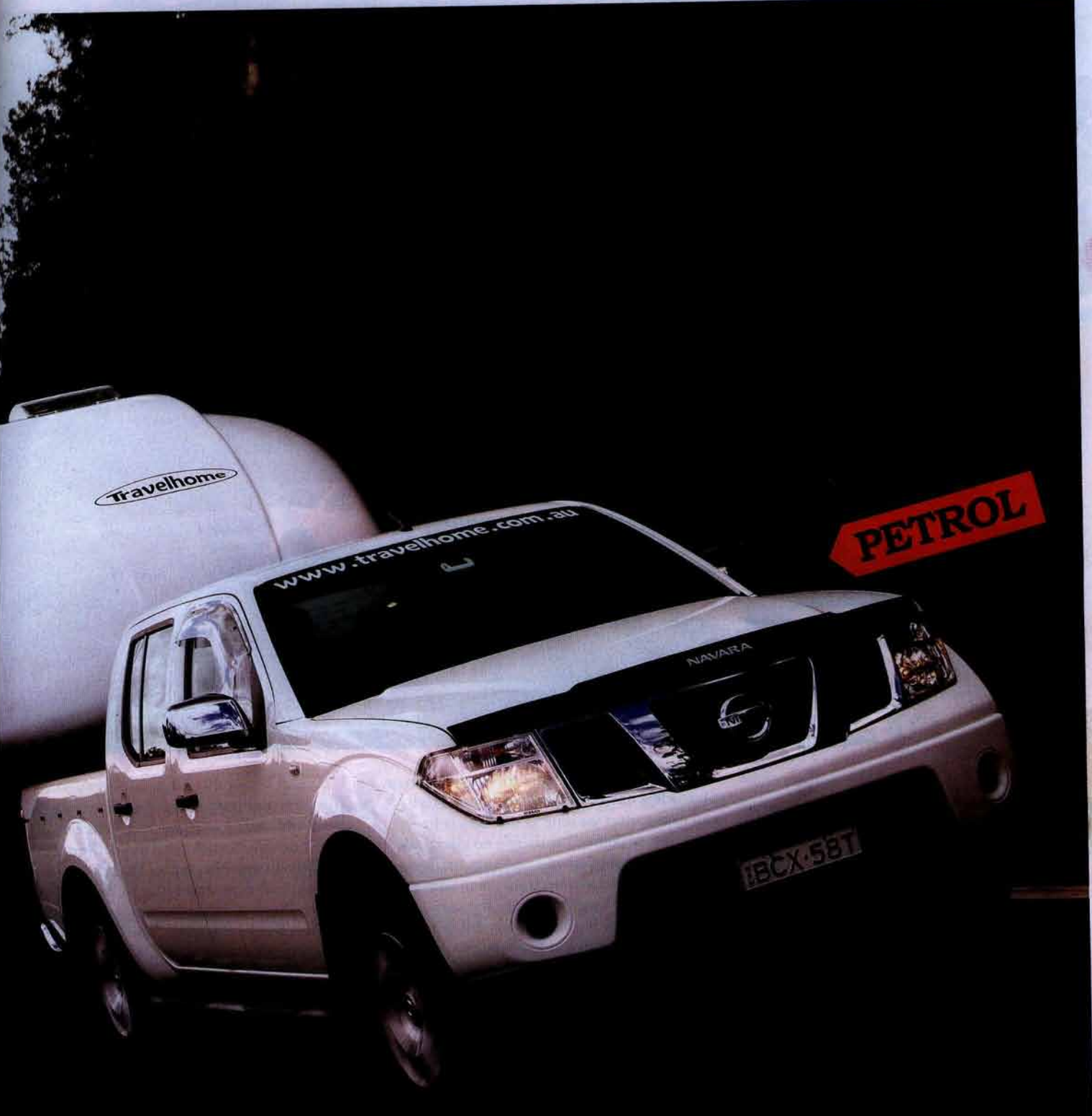
Generally, diesel engines don't produce the same power as petrol engines. What they do have in their favour, however, is economy and high torque production; diesel engines have greater low-speed lugging power than petrol engines.



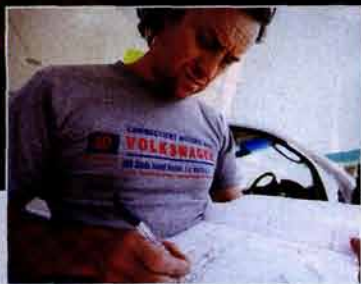
**Diesel engines are usually less powerful than some petrol engines, but they have economy and low-speed load lugging capability on their side**



THIS PHOTO With two fifth-wheelers in one lane and a photographer in the other going for the rest of the world was slow. Sorry.



**FAR LEFT** If I squeeze the hose I'll get a few mills more ...  
**LEFT** Whether it's a diesel- or petrol-powered Navara, manual or auto, with a staggering 3000kg braked towing capacity it's an excellent load lugger



**ABOVE** Okay, so my haircut is booked in for next Tuesday **RIGHT** Diesel Navara had plenty of grunt but the petrol-powered Navara was the more aggressive of the two



**It's possible to travel 20 percent further on diesel than a similar petrol-powered vehicle, an important consideration in remote areas**

In days past, diesels were the choice of many off-roaders due to the fact that they would run underwater (as long as the vehicle had a snorkel, of course!) as there's no electrical ignition system to get wet and stop sparking. Modern diesels have electronic management systems so don't generally have the same aquatic abilities, but their low-speed muscle and economy are just as appealing to off-roaders as ever. Typically, it's possible to travel 20 percent further on a load of diesel than a similar petrol-powered vehicle, which is an important consideration in remote areas.

Diesel's low volatility means it's less likely to blow up than petrol. That makes it safer to transport and store for both heavy industry and travellers with jerry cans. Being an oily fuel, diesel leaves a residue on anything it comes into contact with - including your hands when you refuel your car.

In the showroom, a diesel engine option may be restricted in some models. (some models or trim levels are diesel only; Nissan has only begun offering a diesel) and costs more. The diesel option in Nissan's Navara D40 (as tested for this article) is \$2000 (\$47,990 vs \$45,990 for petrol autos), in Toyota's Landcruiser Prado GX it's a \$1500 option, but in the big Landcruiser 200 it's a whopping \$11K difference. Ouch. Soothing that slap is the fact diesel resale is usually stronger than for petrol so you get a good proportion of the money back when you sell.

**TESTING ON THE ROAD**

The perfect opportunity for a test comparing diesel with petrol in real-world conditions came our way recently with the delivery of two Travelhome Macquarie 29 fifth-wheel motorhomes from Newcastle to Bathurst's Mount Panorama race track as support vehicles for the V8 Supercars race. The tow cars were same-series Nissan Navara D40 dual-cab autos - diesel and petrol.

As well as tugging a Travelhome fifth-wheeler each, the Navaras were loaded similarly: three people in one, two people and extra gear (including food and fridge) in the other. A weighbridge confirmed the masses of the two Travelhomes to be within 50kg of each other - a small percentage of their 2800kg tare weight.

Both vehicle's fuel tanks were brimmed near Travelhome's HQ in suburban Newcastle ready for the journey south to Sydney and then west over the Blue Mountains to Bathurst. The distance was around 350km with a mix of road: - freeway to Sydney, a steep climb and winding road over the Mountains then undulating open country into Bathurst. With a delivery deadline to meet, both vehicles were driven briskly - in fact, quite hard - to the speed limit.

The trek was divided by a fuel stop: Newcastle to the base of the Mountains; then to Bathurst. Splitting the test meant we could compare the fuel use of each engine in relatively flat freeway then hilly conditions.

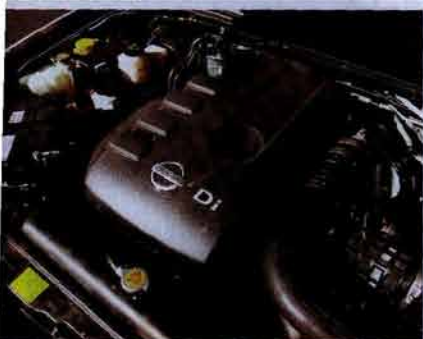


**Nissan's 2.5L turbo-diesel isn't exactly tardy, but it was soon made obvious the petrol Navara was the more aggressive of the two**

### Fast Facts



**MANUFACTURER:** Nissan  
**MODEL:** Navara D40 dual cab petrol 4.0-litre DOHC V6  
**POWER:** 198kW @ 5600rpm  
**TORQUE:** 385Nm @ 4000rpm  
**PRICED FROM:** \$46,970 (ST-X auto)



**MANUFACTURER:** Nissan  
**MODEL:** Nissan Navara D40 dual cab diesel 2.5L DOHC four-cylinder intercooled turbo  
**POWER:** 128kW @ 4000rpm  
**TORQUE:** 405Nm @ 2000rpm  
**PRICED FROM:** \$48,910 (ST-X auto)

### + Counting the cost

The cost per 1000km based on our freeway cruise loop:

Petrol @ 140cpl; diesel @ 150cpl (fuel prices 29 Oct 2008, Newcastle NSW): Diesel: \$207. Petrol: \$231

Over 20,000km the saving is \$480 for diesel; however, greater servicing costs – typically 10 percent higher for diesel – will eat into that benefit.

On the road, Nissan's impressive 2.5-litre turbo-diesel is not exactly tardy, but it was soon made obvious that its petrol brother was the more aggressive powerplant. But the objective for most travellers is to get to where they're going at reasonable speeds with the minimum of fuss and expense. We'll get to that, though.

As the figures reveal, the drive was tough on fuel consumption, especially the section over the Blue Mountains to Bathurst. Figures of 25L/100km (petrol) are fearsome – but that's what's required to lug more than five tonnes at (or near) the speed limit over big hills.

The second part of the test involved the same Navaras but towing a smaller Travelhome Macquarie 25 in gentler conditions. This second route was a little over 220km and with no deadline to meet or photography requirements (as with the Bathurst-bound test) it more closely resembled conditions that a typical tourer would encounter. The route included a small proportion of urban 60, 70 and 80km/h roads with the remainder being freeway.

As with the previous test, and short of draining each tank and filling with a specific amount, each vehicle was carefully filled for accurate fuel measurement. One big difference was the fact the 'target' cruising speed for this test was 90km/h – a speed

we thought would mimic what most people would be happy to travel at, considering fuel use, traffic conditions and vehicle ability. Our test loop from Newcastle's southern suburbs to Berowra in northern Sydney included three significant climbs – Ourimbah, Mooney and Hawkesbury hills – where speeds were washed back to 70km/h.

Rather than side-by-side testing, the two Navaras were driven one after the other, after swapping over the Travelhome. The time stopped at traffic lights for the first test was noted and replicated for the second test by pulling to the side of the road and idling. In all, the exercise was made as 'scientific' as possible.

### JUICE USE

Newcastle-Sydney

**Diesel:** 221km on 37.64L = 17.0L/100km

**Petrol:** 215km on 44.83L = 20.9L/100km

Sydney-Bathurst

**Diesel:** 125km on 27.74L = 22.2L/100km

**Petrol:** 126km on 31.87L = 25.5L/100km

Gentle freeway cruising

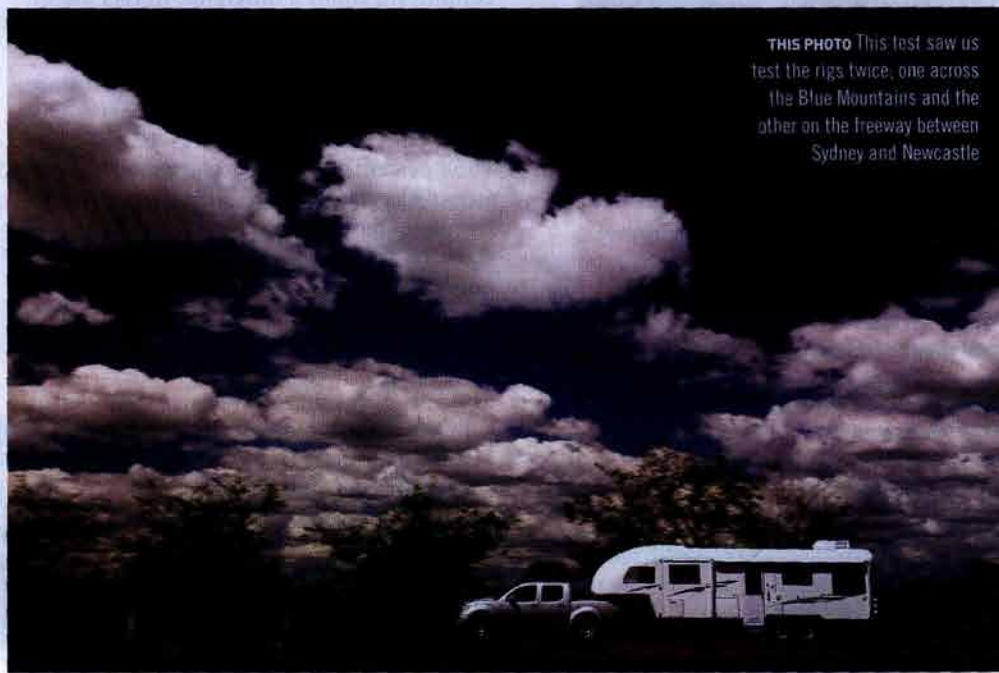
**Diesel:** 222km on 30.43L = 13.8L/100km

**Petrol:** 220km on 36.32L = 16.5L/100km

### WHAT'S IT ALL MEAN?

Firstly, it must be said the two Nissan 4WD dual-cabs performed flawlessly. With a maximum braked towing capacity of 3000kg, the five-speed auto, part-time 4WD Navara is a sterling tow vehicle, petrol or diesel. Even fully loaded and on the less than perfect road surface over the Blue Mountains, both vehicles handled beautifully.

But let's get to the raw facts and figures; not surprisingly, our testing showed that high speeds (and brisk acceleration required to keep the two vehicles close to each other for pics) crucify fuel consumption. So does towing in hilly terrain – but that's not something you can control.



**THIS PHOTO** This test saw us test the rigs twice, one across the Blue Mountains and the other on the freeway between Sydney and Newcastle



GC

No matter whether you drive a petrol or diesel car, saving money is all about slowing down

+ Fuel-saving six-pack

All that stuff you've read over the years about accelerating gently and driving smoothly? Blimey - it's true:

- 1 Do 0-80km/h in 30 seconds instead of 15 and you will save fuel.
- 2 Always run your vehicle's maximum placarded tyre pressures. Check pressures when cold: every time you hitch on your van is a good time.
- 3 Add a little speed when approaching a hill - the extra momentum will help keep you moving.
- 4 Avoid travelling through urban areas during peak hours.
- 5 Keep your rig's weight down - carrying extra water or fuel when it's not required wastes energy. Everything from bath towels to cutlery should be minimised and chosen for light weight.
- 6 Aerodynamics are critical - accessories such as roof racks add drag. Pack as much inside the car or van as you can.

+ Trade-in tragedy

Sure, you feel the price of fuel in the hip pocket every time you fill up, but depreciation is a hidden cost of ownership: your new car will lose around half its value in three years. Here's how these Nissan Navaras stack up according to industry analyst Redbook.

PETROL

2005 petrol auto Navara ST-X is \$25,400 from a \$45,990rrp (2005).

LOSS: \$20,590

DIESEL

2005 diesel auto Navara ST-X \$29,900 from a \$47,990rrp (2005).

LOSS: \$18,000

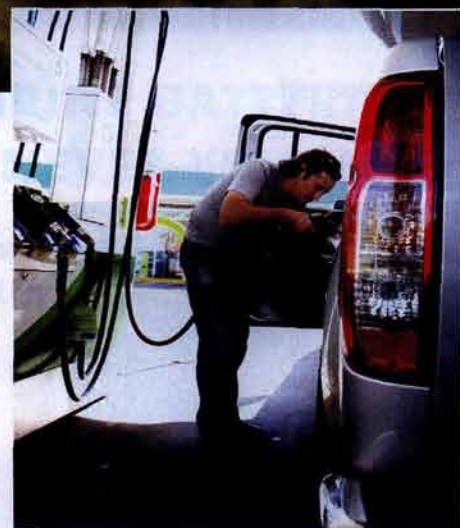
When driven hard, the diesel Nissan's fuel use increased proportionately more than the petrol: its worst figure of 22.2L/100km is a greater percentage increase over its best of 13.7L/100km than the petrol's 25.5L/100km and 16.5L/100km. This was surprising as diesels usually show a smaller percentage increase in fuel consumption when worked hard - but may simply be a characteristic of Nissan's 2.5-litre turbo-diesel engine design.

Our best set of figures, obtained in gentle conditions, shows a difference in fuel use of around 20 percent between petrol and diesel.

When this test was planned, diesel was \$1.90 and petrol \$1.60 per litre - front page news. But two months later when it was time to fill our tanks, prices were \$1.40 and \$1.50 - the percentage difference in price dropping from 19 percent to just seven. That makes the diesel business case stack up better - with the fuels so close in price, you'll save money because (all things being equal, as they were for this test) you'll use less diesel to travel the same distance.

But with a larger price difference - such as diesel 30cpl more expensive than petrol - the economic case for driving a diesel vehicle dwindles. However, other factors - such as greater touring range and stronger resale value - make a diesel vehicle just as appealing as ever.

Whatever you drive - petrol or diesel - saving money is a matter of slowing down and taking it easy! After all, that's what travelling is all about, right? **ADRV**



TOP photographer falls over as the AC+RV precision towing team tootle past ABOVE Some people says Glenn resembles the Hunchback of Notre Dame ...

