



Front Wheel

Can a front-wheel drive Fiat Ducato really drive up a wet grassy slope or loose gravel road? Richard Robertson finds out first hand...

Drive?

In motorhome folklore there are few topics more hotly debated than the merits (or otherwise) of front-wheel drive motorhomes; specifically the Fiat Ducato. The sleek Italian dominates the sub-4500 kg market in Australia, due in no small part to its keen pricing and motorhome friendly features like a long range fuel tank and swivelling cab seats as standard equipment.

Detractors – mainly those pure-bred Aussie blokes who'd never drive anything but rear-wheel drive – delight in recounting stories of the countless times they've towed hapless Ducato owners back from the brink of disaster.

These same people will tell you no Fiat Ducato can make it up any wet or loose incline and that venturing off the smoothest blacktop is a recipe for disaster. To them I have one thing to say: Bollocks. Especially when you consider Ducatos have had electronic traction control for quite a few years now.

I've driven countless Fiat Ducato-based motorhomes over about 15 years and until recently never been stuck – or even looked like getting stuck – anywhere. Well, until recently...



Our creekside campsite; idyllic, but would we be able to escape the next morning, especially after more rain overnight?

A Reader Writes

This story has its genesis in late July 2013, when reader Colin from Oberon on the western slopes of the Blue Mountains wrote the following letter:

"I have just been reading issue 29 (July 20 2013) of iMotorhome in which the Trakka Company show one of their campers (Trakkaway 700) on page 41 with the slogan 'See Australia? Take a Trakka'. The vehicle is powered by a Fiat Ducato. The picture gives the impression that this vehicle will navigate off road conditions, albeit a rocky outcrop. Nothing could be further from the truth. My wife and I own a brand new Winnebago Birdsville powered by the Fiat Ducato MultiJet 180 engine. Even on the slightest slope on damp or wet grass this vehicle is unable to obtain traction."

"The Fiat has a 'traction lock' electronic coupling device to assist with this scenario but it does very little to alleviate the situation. At home we have a solid gravel based driveway with an 8° gradient. From a standing start this vehicle loses traction after about 10 meters and is unable to proceed further. I have tried many gear combinations ranging from 'full auto mode' to manual first or second gear starts but the end result is the same... no traction."

"When we first bought the vehicle in February this year I brought the issue to the attention of the selling dealer who promised to contact me but 5 months later they have never made contact with me. On bitumen roads this vehicle is a dream to drive with the only issues being getting used to the quirky "comfortmatic" gearbox."

Colin and I communicated for some time over his letter and later I received this:

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Colin's new tyres and a subsequent suspension lift have transformed his Birdsville's capabilities.

"My wife and I in our past, younger, life have been avid 4x4 travellers and have bought countless vehicles over the years ranging from Cruisers, Mavericks, Ford Bronco's to Toyota 4 Runners and with each vehicle bought it became the norm to rip out the OEM suspension and tyre/wheel combo and fit aftermarket gear."

"Thinking about this the other day I thought is it worth changing the OEM tyre which are Michelin 225/75 R16 "Camping" tyres to something with more of an aggressive tread pattern. So today I visited my local tyre specialist here in Oberon and discussed the issue with him. His suggestion was to go with Mickey Thompson 245/70 R16 Baja STZ's on the front only (FWD Fiat)."

"This was completed a couple of hours ago

and Richard let me tell you the difference achieved to this vehicle is unbelievable. First of all the ride quality has been improved to that of our Ford Territory road car. Secondly and far more importantly is the Winnebago is now capable of all the things it was unable to do prior."

"I have just put it through its paces on reasonably long green grass without any traction issues at all and to my amazement it was also able to handle my gravel driveway, with traction control engaged, without even spinning a wheel. Maybe you could put together a small article at some stage just to let owners be aware of the benefits in what affects replacing tyres can have on their vehicles performance and handling characteristics."

“ My local tyre specialist's suggestion was to go with Mickey Thompson 245/70 R16 Baja STZs. ”

Fate?

Events recently transpired to provide me with the very Trakkaway 700 Colin had first written about and the opportunity to visit his Oberon property. This seemed like too good an opportunity to pass by “And so it came to pass” that we rendezvoused in Oberon and followed Colin home. What Colin had never mentioned is that he lives on the edge of a State Forest and that access to his property is via fire trails – in all their rough, steep and muddy splendour.

The preceding week had dumped several inches of rain on the area and when we finally arrived at Colin’s rural retreat (in every sense of the term), he led us down a steep gravel driveway, past the shed where his Birdsville lives, through a farm gate and across a paddock to a creek-side camping spot. The grass was reassuringly firm, but it did rain again overnight and as we turned in I wondered what the morning would bring.

Spin Doctor!

The test Trakkaway 700 benefitted from new front-end suspension, which provided a 40 mm lift and provided an average 190 mm ground clearance. On leaving our campsite in the morning we made it easily back up the slight incline to the farm gate, with just a slight pause as we passed through it as the front wheels encountered slick mud and the drive system (sans traction control) scabbled momentarily for traction. From there it was just 10-15 metres of grass to the base of Colin’s steep gravel driveway, but for a while it looked like being a grassy bridge too far.

The problem was that 10-15 metres traversed a dip and rise of thick, rain-soaked paddock grass. Despite my best efforts (and with traction control engaged) all I could produce was track after track of increasingly deep muddy tyre tracks as the standard Michelin Aligis tyres quickly became slick and caked with mud. As Colin had done I tried using

Top to bottom: It doesn't look that bad, but the inclines are deceptive and the grass was soaked after inches of rain in the preceding week. Try as I might the Trakkaway 700 was going nowhere in a hurry...



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first and second gears in manual mode, but first gear spun too easily and second couldn't keep the momentum going quite enough. It was looking like 4WD towing time, but first I suggested we lower the tyre pressures.

Colin's Micky Thompson's run at 45-50 psi and so I suggested we first try lowering them to about 40 psi, thinking they were probably running about 60 psi and not realising the standard Fiat Ducato tyre pressure is a whopping 80 psi. No wonder they were having troubles! Colin produced a tyre pressure gauge and in short order reduced both front tyres to 35 psi – or so we thought.

The next attempt – starting in second gear and tracking the longest route (across relatively pristine grass) got me to within a metre of the driveway before running out of steam. I then selected first gear and drove on to the driveway with no trouble. Not only was there cheering all round, it was then I realised I hadn't engaged traction control since lowering the tyre pressures.

From there, Colin's steep, loose driveway presented no problem – again without traction control engaged – as in second gear (manual) the Trakkaway 700 ambled steadily upwards without even spinning a wheel. To make sure



By the time the pressures were lowered the front tyres were well and truly slick with mud.

that wasn't a fluke I turned around at the top, drove back down and repeated the exercise with the same result.

Once back at his house, Colin went to adjust the tyre pressures and he discovered something else interesting; one front tyre was at 35 psi and the other was at 50 psi. It seems in the mud and excitement of lowering the pressures he'd mis-read one of the readings. Knowing the road back into Oberon contained some challenging climbs (Colin has an alternative exit across paddocks he often uses with the motorhome), I elected to keep both front tyres at 50 psi. There was one particularly steep, climbing left-hand hairpin that Colin said I'd need to take in two bites, reversing onto a more level area at the apex

for the second go. Following him out I took the corner wide, but decided to try in one go as the engine was pulling strongly and there were no apparent traction issues. Sure enough the little Trakkaway 700 sailed right around and up, again without wheel spin or raising the slightest mechanical sweat. Other climbs were treated with equal disdain and at no point in any of this did I feel ground clearance was an issue.

So?

When I first corresponded with Colin I said I believed vehicle layout was possibly a factor, i.e. the positioning of water tanks and other heavy furniture items. His Birdsville has a rear bathroom and uses a standard Fiat Ducato cab-chassis,

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The carnage after the fact – and the long hill (8%) ahead. With pressures lowered the Trakkaway 700 sailed up without trouble, but I believe it would have anyway.

with comparatively heavy leaf-spring rear suspension. The Trakkaway 700's lighter AL-KO chassis allows central water tank placement and does away with the heavy rear leaf spring; instead using simple torsion bar suspension that also serves as a structural chassis cross member. All these factors affect front/rear weight distribution, as does vehicle load such as tools, extra water containers and so on.

By changing tyres to slightly wider, lower pressure items with a more aggressive tread pattern Colin was able to overcome any weight distribution problems and his Winnebago Birdsville – which now also boasts raised front suspension and rear assist air bags – is a capable tourer he's no longer afraid to point down a dirt road.

Given no two motorhomes are ever going to weigh exactly the same; have weight distributed identically or be operated by equally skilled/experienced drivers, it would be foolish to suggest any front-wheel drive motorhome can be taken 'bush' without a second thought. Or that lowering the tyre pressures is a cure-all for all front-wheel drive traction problems. However, this experience did show that with the right tyre pressures and a calm approach, such a vehicle – in particular a Trakkaway 700 – can certainly go places straight off the showroom floor many people wouldn't think possible.



Food for thought

Would a rear-wheel drive motorhome have struggled in this same situation? Again it depends on weight distribution, tyre pressures and driver technique, but given the conditions I believe it would have, to some degree at least. Here are some tips to help avoid embarrassing yourself in a mildly difficult traction situation, regardless of which end of your motorhome powers the wheels:

- Know your standard tyre pressures and realise that a highly inflated tyre with smooth on-road tread will provide little traction on loose surfaces.
- Carry a good tyre pressure gauge and check pressures regularly
- If you have dual rear wheels fit valve extensions to make pressure adjustment

easy. You're much more likely to check them that way

- Carry a good quality portable 12 V air compressor, not something from a cheap tool shop, and make sure you have enough power lead and hose to reach all wheels (or have a 12 V outlet/s in close proximity).
- As a guide, when lowering tyre pressure start at about 50% of normal. If that doesn't work go to 25% – but only to get you out of trouble. Reinflate as soon as you're through. The danger when lowering pressures is you'll go too far and break the seal between the bead and rim that keeps the air in (all tyres these days are tubeless). If that happens your 12 V pump won't have enough 'oomph' to reseal the tyre and you'll need to fit the spare.