

MERCEDES-BENZ SPRINTER GOES ALL WHEEL DRIVE

The Mercedes-Benz Sprinter is the most successful large van in the Australian market, but a new 4x4 variant in van and cab/chassis configurations could change the load-carrying 4x4 and off-road camper-van market.



Semi-bonnetted, rear wheel drive European vans have virtually taken over the Australian camper van and motor home market. You can still buy a camper van based on the old-fashioned Toyota HiAce cab-forward van, but why would you? Toyota can't sell the HiAce in Europe, because it doesn't meet EU safety standards, but they continue to flog it here.

So, while 4x2 Euro chassis have become the standard for camper van and motorhome conversion in Australia there's been no 4x4 van and cab/chassis available Down Under, as the base for a bush-touring vehicle. Sure, we had the OKA for a few years (Allan Whiting came up with the name 'OKA' for the Perth-based designers, incidentally) and several makers have built motorhomes on Fuso Canter 4x4 and Isuzu NPS light truck cab/chassis, but they're strictly for hard-core enthusiasts. Ride quality in these Japanese trucks is woeful.

Mercedes-Benz has a history of producing off-road capable light and heavy vehicles and has been the main supplier of medium 4x4 and 6x6 trucks to the Australian Army for years. It's also the successful tenderer to replace the aged Land Rover fleet in the ADF with G-wagens, but for some reason the company hasn't pursued the civilian market for its excellent 4x4 and 6x6 products. Off-road Sprinter variants have been available in Europe since the model's introduction, but have only just made it Down Under.

We suspect that Mercedes-Benz Australia hasn't yet realised the potential in their newly released Sprinter 4x4 range. Our testing showed this vehicle has good bush credentials and is worthy of consideration by anyone wanting payload capacity and interior volume in an off-road machine.

The Sprinter 4x4 is based on the 4x2 version, with off-road specific components engineered by Austrian company Oberaigner.

This company is a 'qualified partner and system supplier' to Mercedes-Benz; much like AMG before it was absorbed into the Daimler empire. Although Oberaigner makes a full-time 4x4 version, with optional transfer case and rear axle differential locks the only version being imported by Mercedes-Benz Australia has a selectable-4x4 driveline, without centre or rear-axle diff locks.

On the plus side, the Sprinter 4x4 has a modified edition of the 4x2 Sprinter's Adaptive ESP system, with ABS and ASR, electronic brake force distribution (EBD), hydraulic brake assist (BAS) and, optionally, Start-off Assist. Adaptive ESP/4ETS also includes the control functions for the all-wheel-drive system and sensors continuously supply the central controller with information about the driver's inputs and about operating and driving conditions. The most important parameters are steering angle, accelerator position, engine speed, wheel speeds, rotational movement about the vertical axis of the vehicle (yaw) and lateral acceleration.

Mercedes-Benz Australia has released the Sprinter 4x4 in van, cab/chassis and crew-cab/chassis versions with a choice of mid (3665mm) and long (4325mm) wheelbases. The long wheelbase models can be specified with 4.49-tonne gross mass rating, for passenger car licence drivers, or 5.0-tonne GVM, for light truck drivers.



The Australian line-up consists of the 316 model as a mid wheelbase van, cab/chassis and dual cab/chassis; the 318 as a mid and long wheelbase van; the 516 as a long wheelbase van and dual cab/chassis and the 519 as a long wheelbase van and cab/chassis.

The '3' in the model number denotes 3.55 tonnes GVM and the '5' denotes 5.0 tonnes GVM. The '16' denotes 163hp (120kW), from a sequentially twin-turbocharged, four cylinder, 2.1-litre diesel that has peak torque of 360Nm from 1400rpm to 2400rpm; and the '18' denotes 180hp (134kW), from the same 440Nm, three-litre V6 aluminium diesel that powers the M-Class wagon.

Transmission choices are a six-speed manual or five-speed tiptronic-style automatic. The transfer case has low range gearing of 1.42:1 and splits torque 33 percent front: 67 percent rear. The Sprinter is semi-monocoque in design, with an inverted hat-section frame welded to the floor pan full length. Up front the drive axle components and suspension are mounted on a massive sub-frame. The transfer case bolts directly to the rear of the main transmission, leaving the belly area clear of obstructions.



Suspension up front is by struts and lower wishbones with an anti-sway bar, and at the rear by long mono-leaf springs with dampers and anti-sway bar.

Standard tyres on the '3' series are 235/65R16

Continental van rubber, on 6.5J steel rims, but the '5' models have skinny 205R16s up front and 'super single' 285/65R16 rears, on 8.5J rims. We'd be looking at having the fat rims and wide tyres all round on a '3' or a '5'.

The Competition

Sprinter 4x4 van and cab/chassis models sit between traditional 4x4 utes and 4x4 light trucks. Even with its open centre and rear diffs the Sprinter can match 4x4 utes for off-road ability, while greatly exceeding them in cargo or passenger capacity. When compared with 4x4 light trucks the Sprinter has car-like dynamic safety features, traction control, ergonomics, comfort and vastly better ride and road manners.

The Sprinter 4x4 is a \$22,000 ask above the 4x2 models, so that gives a 316 manual 4x4 mid-wheelbase cab/chassis a RRP of \$66,490. Priced a LandCruiser ute cab/chassis lately? A Sprinter 316 manual van model has a RRP of \$73,990, compared with the Troop Carrier's \$65,440, but the Sprinter comes with a huge sliding side door and full headroom as standard. Payload capacity for the Sprinters ranges from around 1.4 tonnes to 2.3 tonnes.

On-road

The 4x4 Sprinter test vehicle was a 318 medium wheelbase van model that Mercedes-Benz had stickered somewhat gaudily and, we thought, optimistically. Fake mud splatters up one side suggested this ungainly looking vehicle would go anywhere off-road, but we were sceptical.

We loaded the back with a half-tonne of railway sleepers, stowed four people and a heap of gear inside and ran the vehicle for two days over different road conditions.

In rear wheel drive mode, on highway, the Sprinter was undetectable from a two wheel drive model: it rode, handled and steered well.

Car-like ergonomics, cruise control, climate control, stubby transmission lever and excellent forward vision made driving it on bitumen surfaces a breeze and it was the same story on gravel.

The selectable full-time 4x4 driveline engaged all wheel drive with the vehicle running in neutral and the speed below 10km/h. A push on the dashboard button and all was done. In this mode the steering loaded up slightly, but because the Sprinter is fitted with a centre differential it could be driven on firm surfaces and at all speeds in 4x4 mode. Disconnecting 4x4 mode was done in the reverse manner, by slowing to under 10km/h and slipping the auto lever into 'N' before hitting the button once again.

In 4x4 mode the Sprinter had much more grip than its tall stance suggested and we embarrassed a couple of 4x4 utes on loose gravel. The Sprinter sat flat through twisty bits and it took a great deal of provocation in tight corners to activate the dynamic stability control system.

On rough, corrugated and potholed surfaces the combination of coil struts up front and long mono-leaves at the rear gave an excellent, pitch-free ride. We could maintain high cruising speeds without effort.

Anyone who's driven a Japanese 4x4 Mitsubishi Canter or Isuzu N-Series light truck will be amazed by the contrast with the Sprinter 4x4. The Japanese vehicles have poor ride quality on good surfaces and are totally unacceptable on rough surfaces.

The Sprinter rides as well on rough surfaces as most 4x4 wagons and better than 4x4 utes.

Our test vehicle was fitted with the excellent Mercedes-Benz W5A380 tiptronic-style auto five-speed main box, which has a quicker shift action than many 4x4 wagon boxes. Shifts were seamless and easily manually overridden by a sideways flicking action of the lever.

The three-litre aluminium block-and-heads V6 diesel comes from the M-Class and has ample grunt to propel the loaded Sprinter 318 to illegal speeds very smartly.

Noise levels inside the unlined van body were louder than ute levels, but we know from experience that an interior fitout quietens van noise markedly. We've been promised a drive in a new Trakka Sprinter 4x4 camper van when it's finished, so we'll monitor real-world noise then.

Vision from the high-set driving perch over the sloping bonnet was excellent and checking the rear was made easy by powered, folding truck-sized mirrors, supplemented by wide-view spotters.

Off-road

We've done tests overseas in vehicles like this and have found them to be mere 'traction trucks' that have enhanced tractive effort on loose and slippery surfaces, but no real off-road ability.

The Sprinter 4x4 proved to be quite different.



Low range selection was done at rest, with the transmission in 'N' or 'P' and to enhance grip we dropped tyre pressures in the relatively skinny 235/65R16s to a recommended bottom setting of 40psi. We didn't expect too much from this open-diff machine on steep, loose sandstone climbs, but we were soon amazed by the agility of this big box on our off-road course. It went everywhere LSD-equipped 4x4 utes could go and then some.

The traction control system proved to be very powerful and enduring, controlling spin constantly as the street-pattern, van tyres lost grip.

Fatter, lower-pressure rubber would have made a huge difference and we'd love to give a diff-locked version a go.

Given that the part-loaded van had non-bush tyres we didn't tempt fate by dropping pressures to 16psi and running it on soft beach sand, but with 285-section 4x4 LT rubber there's no reason why it won't do that.

Despite its volume the Sprinter van doesn't weigh any more than a LandCruiser 200 Series or a Land Rover Discovery. However, the weak link in the Sprinter 4x4 spec' is its open centre and axle diffs, but there may be Austrian help on the way...

Oberaigner's Best Down Under

We asked Oberaigner in Austria about the possibility of retro-fitting full-time 4x4 and centre and across-axle diff locks, but for warranty purposes the company insists that all Sprinter mods need to be carried out at the Oberaigner plant in Austria.



However, all is not lost: there are several options being investigated by the keen Austrians, who can see great potential in the Australian market.

The company's director of corporate development, international sales and marketing, Dominik Mimra, told [4x4 Australia](#) that Oberaigner can supply factory-fresh, genuine Mercedes-Benz vehicles, configured exactly according to customers' wishes, with full-time 4x4 and diff locks.

"We have very competitive pricing, because we directly procure from Daimler factories, said Dominik Mimra. "We already directly supply other markets, such as Africa, for Daimler.

"Furthermore, we can offer 4x4 versions that are not directly available from Daimler, including short wheelbase models and vehicles fitted with oversize wheels and tyres.

"Oberaigner is also about to launch a four-tonne payload Sprinter 6x6 that has extreme tractive ability."



Conclusion

The Mercedes-Benz Sprinter 4x4 could do great business as a ute replacement, a camper van, a bush fire fighting vehicle, or an off-road tour bus.

We'd like to see the available traction aids incorporated in the Mercedes-Benz Australian model lineup, but the range as it stands should have great appeal to buyers who've been waiting for such a machine.